✯ WARS

WyTRCC's Efforts to Improve The Wyoming Accident Reporting System (WARS)

Data Dictionary

BASE SECTION

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WORKING COPY

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Base Segment

B1. Key Crash Case No. Identifier 9N (MMUCC C1 Page 32) (WARS Page A1)

Definition - This is the crash year four digits, and a unique five digit identifier. The unique identifier within a given year identifies a given crash. This element is combined with the number of each person, driver and vehicle to provide a unique key for each item involved in the crash. **Assigned by the Highway Safety Program, Accident Records personnel**.

Rationale: Used to document a specific crash. Enables sub-files to be created for analysis and linked back to the crash data file.

B2. Crash Year 4N (MMUCC C2 Page 32) (WARS Page A1)

Definition - The year of which the crash occurred.

> The year is edited against the computer clock upon data entry for error. Year cannot be unknown; if an event happens at year end, it will either be assigned to the ending, or the new year.

Rationale: Important for management/administration, evaluation, and linkage.

B3. Form Type 1N (Source of Information) (MMUCC C9 Page 36) (WARS Page A1)

Definition - The form type identifies the source of the information.

Attributes:

1 = PR-801 Operator's or Owner's Traffic Accident Report required by State Statue 31-5-1106.
2 = PR-802 State of Wyoming Investigator's Traffic Accident Report.
3 = PR-901 Operator's or Owner's Traffic Accident Report required by State Statue 31-5-1106. (2006)
4 = PR 902 State of Wyoming Investigator's Traffic Accident Report. (2006)
7 = PR-807 discontinued December 31, 1987 no longer used.

Rationale: Important to determine the source of the crash report. The 1 is used only when the crash was not investigated by a Police Officer and the only report received was a Form 801, from the Operator or Owner. PR-807 remains as a source for crashes occurring before January 1, 1988.

B4. Rural/PID/Non PID cities 2N (Not MMUCC but related to C4 Page 33) (WARS Page A1)

Definition - This identifies on a broad scale where the crash was located.

Attributes:

1 Rural
2 PID City
3 Non PID City
99 Unknown

The crash is rural if it occurs outside the urban or corporate limits of any incorporated town or city. PID Cities are those with a population of 5,000 or greater and are marked by an * asterisk on the City Code Table. Non PID Cities are all incorporated cities and towns in Wyoming with a population below 5,000.

Rationale: Important for management/administration, evaluation and linkage.

B5. Crash County 2A (MMUCC C3 Page 33) (WARS Page A1)

Definition - The county in which the crash occurred.

Attributes:

AL Albany	**FR Fremont**	**NA Natrona**	**SW Sweetwater**
BH Big Horn	**GO Goshen**	**NI Niobrara**	**TE Teton**
CL Campbell	**HS Hot Springs**	**PA Park**	**UI Uinta**
CB Carbon	**JO Johnson**	**PL Platte**	**WA Washakie**
CO Converse	**LA Laramie**	**SH Sheridan**	**WE Weston**
CR Crook	**LN Lincoln**	**SB Sublette**	

Each crash must be assigned to one of the 23 counties. The codes are convertible to the GSA/FIPS format upon request.

Rationale: Important for analysis of county area programs and intrastate comparisons.

B6. Street Code 1 4A (Not MMUCC but related to C5 Page 33) (WARS Page A2)

Definition - Each street/highway/road in a PID or Non PID City areas is represented by a three digit alphanumeric code. Highway Safety Accident Data Management Section is responsible for creating and maintaining the Street Codes for the WARS System. Street Codes began in 1984 for PID Cities and 1990 for Non-PID Cities. (See City Code)

Street Codes will be linked to the Linear Referencing System (LRS) once fully developed.

Rationale: Used to locate crashes in PID and Non PID cities accurately.

B7. Street Code 2 4A (Not MMUCC but related to C5 Page 33) (WARS Page A2)

Definition - Second street code for intersections.

Clarification - If a crash occurs within or is related to an intersection, two street codes are required, one for each intersecting street. Street Code 1 is the road where the crash actually occurred and Street Code 2 is the code for the related roadway. Highway Safety Accident Data Management Section is responsible for creating and maintaining the Street Codes for the WARS System. Street Codes began in 1984 for PID Cities and 1990 for Non-PID Cities. (See City Code)

Street Codes will be linked to the Linear Referencing System (LRS) once fully developed.

Rationale: Used to locate intersection or intersection related crashes in PID and Non PID Cities accurately.

GPS Crash Location (Requires 2 Fields one 8 N and the other 9N)

B8. GPS Latitude Coordinate (MMUCC C5 Page 33)

B9. GPS Longitude Coordinate

Definition - of Crash Location is a route name and GPS (Global Positioning System)/GIS (Geographic Information System) locator, used in conjunction with the Linear Referencing System to locate where the crash occurred.

Rationale: The optimum definition of Crash Location is a route name and GPS/GIS locator, used in conjunction with the Linear Referencing System to locate where the crash occurred. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B10. Linear Referencing System (LRS) Route Number (Unknown N)
(MMUCC C5 Page 33)

Definition - Linear Referencing System Route number used to locate where the crash occurred. Eventually every street, highway, road in Wyoming will have a unique LRS route number.

Clarification - If a crash occurs within or is related to an intersection, two LRS route numbers are required, one for each intersecting route. LRS route 1 is the road where the crash actually occurred and LRS route 2 is for the related roadway.

Rationale: Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B11. County Road Code 6A (MMUCC C5 Page 33) (WARS Page A2)

Definition - Every county road in the State of Wyoming has a unique County Road I.D.

County Road identification codes come from the maps provided by WYDOT Planning Mapping Section. Will be linked to the LRS. The county identifier is omitted. Example: 17-44 should be in WARS as 44, denoting county road number 44 in Sheridan County. Laramie County is an exception.

Rationale: Used with LRS, GPS and milepost to locate crashes on county roads. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B12. Highway System 2N Keep Until New LRS is defined. (WARS Page A1)

Definition - Identification codes that were used to designate the system before LRS.

Attributes:

1 Interstate
2 Primary FAP
3 Secondary FAS
4 City Streets/Alleys
5 County Road Rural
6 (blank 1992 forward)
7 Indian Reservation
8 State Highway
9 Marginal M Route
10 BLM Road
11 Forest Service
12 State or Natl Park Road
13 College - University Road
14 Service Road
15 County Road Urban
16 * Forest Prior to 1991

Rationale: We will be able to cross link the old with the new. This was the system of location for 20 years.

B13. Highway Section 2A Keep Until New LRS is defined. (WARS Page A2)

Definition - Highway section is assigned by the WyDOT Planning Program; see the Wyoming Milepost System book. Historically, the section designation is rarely changed for a road segment; it is usually a reliable tool for reviewing the history of state road segments. Interstate highways can only be 01 or 03. See the Urban Accident Data Coordinator for urban M route codes.

Attributes:

2N, [2A for M Routes NOT on the State System] 1 - 25 for State System routes, except for Sheridan County 80

Clarification - If the crash occurred on a State Highway, use the Section Number. Refer to the Wyoming Reference Marker System Book available from Transportation Planning.

Rationale: ERP has assured us that we will be able to cross link the old with the new. This was the system of location for 20 years.

B14. City Code 3N (MMUCC C4 Page 33) (WARS Page A3)

Definition - Every incorporated city/town in Wyoming has a unique City Code. City Code used to locate crashes that occur within the corporate or urban limits of all PID and Non-PID cities and towns. The codes are convertible to the GSA/FIPS format upon request.

Rationale: Used in conjunction with Steet Codes, LRS, GPS and milepost references to accurately locate crashes within incorporated cities and towns. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

CITY CODE, City Name, County, Highway District, WHP Division, State Plane Coordinate Zone

005	AFTON, LN	3K	185	GREYBULL, BH	5G	385	ROCK RIVER, AL	1J
010	ALBIN, LA	1A	190	GUERNSEY, PL	2F	387[2]	ROLLING HILLS, CO	2M
013[3]	ALPINE, LN	3K	195	HANNA, CB	1H	390*	ROCK SPRINGS, SW	3E3
015	BAGGS, CB	1H	200	HARTVILLE, PL	2F	395	SARATOGA, CB	1H
017[2]	BAIROIL, SW	2H	205	HUDSON, FR	5I	400*	SHERIDAN, SH	4C2
018[2]	BAR NUNN, NA	2B	210	HULETT, CR 4L		410	SHOSHONI, FR	5I
020	BASIN, BH	5G	215	JACKSON, TE	3K	415	SINCLAIR, CB	1H
021	BEAR RIVER		220	KAYCEE, JO 2C		418	STAR VALLEY RANCH, LN	3K
025	BIG PINEY, SB	3K	225	KEMMERER, LN	3D	420	SUPERIOR, SW	3E
030	BUFFALO, JO	4C	230	KIRBY, HS	5G	425	SUNDANCE, CR	4L
032[2]	BURLINGTON, BH	5G	232	LA BARGE, LN	3D	435	TENSLEEP, WA	5G
035	BURNS, LA	1A	235	LA GRANGE, GO	2F	440	THAYNE, LN 3K	
040	BYRON, BH	5G	245*	LANDER, FR 5I3		445	THERMOPOLIS, HS	5G
045*	CASPER, NA2B2		250*	LARAMIE, AL	1J1	450*	TORRINGTON, GO	2F1
050*	CHEYENNE, LA	1A1	255	LINGLE, GO	2F	455	UPTON, WE	4L
055	CHUGWATER, PL	2F	265	LOST SPRINGS, CO	2M	460	VAN TASSELL, NI	2M
060	CLEARMONT, SH	4C	270	LOVELL, BH	5G	465	WAMSUTTER, SW	3H
065*	CODY, PA	5G3	275	LUSK, NI	2M	470*	WHEATLAND, PL	2F
070	COKEVILLE, LN	3D	280	LYMAN, UI	3D	475*	WORLAND, WA	5G2
075	COWLEY, BH	5G	285	MANDERSON, BH	5G	477[1]	WRIGHT, CL 4L	
080	DAYTON, SH	4C	291	MANVILLE, NI	2M	480	YODER, GO	2F
085	DEAVER, BH5G		295	MARBLETON, SB	3K			
090	DIAMONDVILLE, LN	3D	300	MEDICINE BOW, CB	1H			
095	DIXON, CB	1H	305	MEETEETSE, PA	5G			
100*	DOUGLAS, CO	2M	307	MIDWEST, NA	2B			
105	DUBOIS, FR	5I	310*	MILLS, NA	2B			
107[2]	E. THERMOPOLIS, HS	5G	315	MOORCROFT, CR	4L			
115	EDGERTON, NA	2B	320	MOUNTAIN VIEW, UI	3D			
120	ELK MOUNTAIN, CB	1H	325	NEWCASTLE, WE	4L			
130	ENCAMPMENT, CB	1H	330	OPAL, LN	3D			
135*	EVANSTON, UI	3D4	340	PAVILLION, FR	5I			
140*	EVANSVILLE, NA	2B	345	PINE BLUFFS, LA	1A			
145	FORT LARAMIE, GO	2F	350	PINEDALE, SB	3K			
155	FRANNIE, PA	5G	352[2]	PINE HAVEN, CR	4L			
160*	GILLETTE, CL	4L1	355*	POWELL, PA	5G3			
165	GLENDO, PL2F		365	RANCHESTER, SH	4C			
170	GLENROCK, CO	2M	370*	RAWLINS, CB	1H2			
175	GRANGER, SW	3E	375	RIVERSIDE, CB	1H			
180*	GREEN RIVER, SW	3E3	380*	RIVERTON, FR	5I3			

Wyoming has 98 incorporated cities and towns. Each city code used is checked for the appropriate county. Cities with population of 5000 and greater are "PID" cities, marked by * asterisk. Evanston and Wheatland became PID cities in 1985; Wheatland's population has since declined and it was dropped from the PID city category after 1991.

Evansville (140), Mills (310) and Bar Nunn (18) are included in the Casper Urban limits; use code 045. [1]Begin 1986: Wright. [2]Begin 1990: Bairoil, Bar Nunn, Burlington, East Thermopolis, Pine Haven, Rolling Hills. Dropped in 1990: Elmo (joined with Hanna), and Lost Cabin. [3]Begin 1993: Alpine. Begin 2005: Star Valley Ranch

B15. Milepost/Reference Marker Number 5N (Decimal 2 places) (MMUCC C5 Page 33) (WARS Page A4)

Definition - Milepost Marker of any location with available milepost markings. We record the milepost to the **nearest hundredth** (.01) of a mile for locations with mileposting. This is best collected at the scene of the crash by the investigating officer. It may required measuring to/from the nearest milepost marker or structure.

Clarification - The milepost number is used in conjunction with LRS Route Numbers, County Road Codes, and Street Codes to locate the First Harmful Event on mile posted routes. Investigators are requested to provide accuracy within 0.01 miles. County roads are approximate. Crashes on county roads should be measured distance from the nearest intersection. County Road milepost maps are available.

Milepost are validated against MPF files. MPF files contain the following information:

Rural: county, district, LRS Route Number, highway section, highway system, beginning milepost, ending milepost, WHP Division, route sign, function classification, federal number, equation

Urban: LRS Route Number, highway section, highway system, beginning milepost, ending milepost, route sign, function classification, federal number, equation

County: county, county road code, LRS Route Number, beginning milepost, ending milepost, function classification, road name

One MPF file exists for each county for "on system" routes and is used during data entry to validate the existence of the reported route and milepost for each crash. One MPF file also exist for each county for county roads and is used during data entry to validate the existence of the reported county road and milepost for each reported crash.

MPF validation include the existence of the road and the milepost. If valid other items in the MPF file may be appended to the crash data. MPF files are maintained by Highway Safety from data supplied by the Wyoming Reference Marker Book and county data from Planning's Mapping Section.

"On System" roads are routes owned and maintained by the State of Wyoming.

Rationale: Used to identify the exact location on the roadway where the first harmful event of the crash occurred. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B16. Equation 1A (Not MMUCC) (WARS Page A4)

Definition - In rare cases on state highways, a section of road may have been reconstructed that resulted in a shorter or longer roadway. In theses situations an EQUATION is posted, resulting in duplicate milepost locations along the route in some cases, and missing milepost locations in other cases. There will be no Equations in the LRS System.

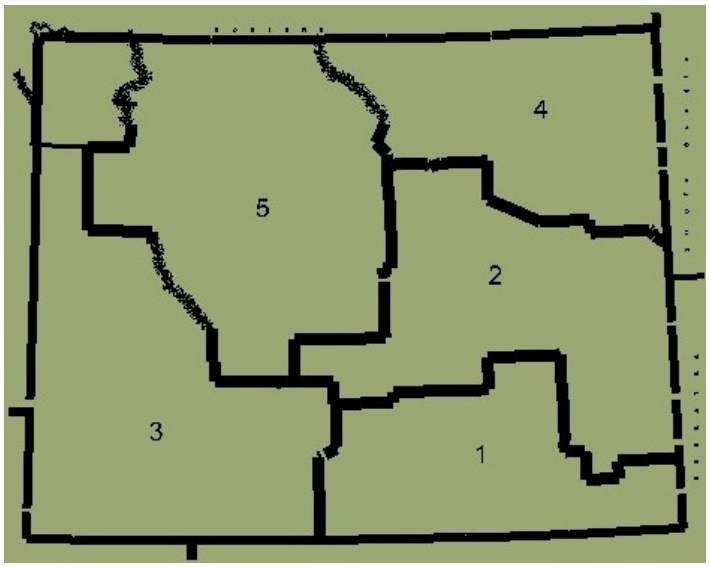
Attributes:

A = Ahead
B = Back
Blank if none.

Clarification - Available for "on system" routes when the crash occurs within an equation. Used only if there are duplicate milepost reference numbers on the route. See the WYDOT Wyoming Reference System Book. Beginning in 1990: Milepost data is automatically validated for equations (.MPF files).

Rationale: Necessary when duplicate milepost occur on routes that have been reconstructed or have new alignments. When construction lengthens a route one or more miles BACK (BK) milepost are placed with the first set of duplicate milepost numbers. The AHEAD (AH) or BACK (BK) milepost are placed at the first full location point either side of an equation location. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B17. Highway District 1N (Not MMUCC) (WARS Page A6)



Definition - The State is divided into five districts for management purposes: The HIGHWAY DISTRICT is NOT a specific item captured on the investigator's traffic accident report form; it is determined from the report information by personnel in the Highway Safety Program. It's purpose is to quickly identify which district the data user may require in evaluation of a particular roadway location.

Attributes: 1 - 5 Each crash is assigned into one of the five districts.

Rationale: Required to track crashes by Districts.

B18. Divided Highway 1A (WyTRCC decided to keep) (Not MMUCC)(WARS Page A7)

Definition - Indicates if the roadway is physically divided, either by structure, curb, median etc.

Attributes:

Y - Yes
N - No

Rationale: Used in analysis of data as an easy way to determine if the Highway is divided.

B19. Side of Highway 2N (Not MMUCC) (WARS Page A7)

Definition - For divided highways only; Indicates which lanes the crash occurred in or originated from in direction of increasing or decreasing milepost number. Mileposts generally increase from the southern border to north, and western border to the east. This field is blank if DIVIDED HIGHWAY is blank or "N", or if HIGHWAY SYSTEM is not an interstate highway. Note: vehicle DIRECTION OF TRAVEL provides similar information.

Attributes:

1 - Increasing
2 - Decreasing
99 - Unknown

Rationale: Used to determine correct side of divided highways the crash occurred on. Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes.

B20. Located Accurately 1A (Not MMUCC) (WARS Page A7)

Definition - Crashes are located accurately if the accident report identifies the location within 50 feet in an urban area, or within 0.01 (one-hundredth) of a mile in rural areas. If data analysis involving location is particularly important, only reports coded as "Y" can be reliably utilized with confidence. All available resources should be used to ascertain the accident location. Also see INVESTIGATED AT SCENE and FORM TYPE. This segment LOCATED ACCURATELY is NOT a specific item captured on the investigator's traffic accident report form; it is determined from the report information by personnel in the Highway Safety Program.

Attributes:

Y - Yes
N - No

Rationale: Critical in data analysis confidence checks.

B21. Crash Date 8N (MMUCC C2 Page 32) (WARS Page A7)

Definition - The date that the crash occurred; NOT the date that it was reported or the date that it was discovered.

Attributes:

(YYYYMMDD)

Rationale: Important for management/administration, evaluation, and linkage.

B22. Time of Crash 4N (MMUCC C2 Page 32) (WARS Page A7)

Definition - **This is the approximate time of the crash**; NOT the time of discovery or the time the crash was reported. Use the 24 hour clock, starting at 0001 and ending at 2400.

Attributes:

0001 - 2400
99 - Unknown

The time of the crash from the investigator's report when possible; or nearest approximate time.

Rationale: Important for management/administration, evaluation, and linkage.

B23. Day of Week 2A Derived (MMUCC C2 Page 32) (WARS Page A7)

Definition - The day of the week in which the crash occurred; derived from the Crash Date.

Attributes:

SU, MO, TU, WE, TH, FR, SA,
99 - Unknown

Day of week is validated from the crash date by computer algorithm.

Rationale: Important for management/administration, evaluation, and linkage.

B24. Number of Drivers 2N (Not MMUCC) (WARS Page A8)

Definition - (ANSI D16) A driver is an occupant who is in actual physical control of a transport vehicle or, for an out-of-control vehicle, an occupant who was in control until the control was lost.

Attributes:

0 - 25

Clarification - A driver is defined as any person in physical control of a vehicle or a person who was in control of a vehicle when control was lost; persons entering or exiting a vehicle are NOT drivers. A child that has put a vehicle in motion is NOT a driver; a crash may have zero drivers. **Bicyclist are not Drivers,** They are non-motorist.

Rationale: Provides the number of drivers involved in a crash. Simplifies the use of the crash data file for producing reports in which the number of drivers is needed.

B25. Number of Motor Vehicles Involved 2N (MMUCC CD2, Page 42) (WARS Page A8)

Definition - A motor vehicle is any motorized device that transports persons or property, this would include motorized Pedestrian Vehicles, Motorized Skate Boards etc. See **Motor Vehicle Type Category**.

Attributes:

1 - 25

Clarification - A vehicle is any device that transports persons or property, but excludes non motorized devices used by pedestrians (skateboards, wheelchairs, etc.); see the ANSI Manual on Classification of Motor Vehicle Traffic Accidents, and Wyoming State Statute, Title 31.

Rationale: Provides the number of motor vehicles involved in a crash. Simplifies the use of the crash data file for producing reports in which the number of involved vehicles is needed.

B26. Number of Persons Involved 2N (WARS Page A8) (Not MMUCC)

Definition - The total number of persons directly involved in the crash.

Attributes:

0 - 99

Clarification - Number of persons includes all occupants of vehicles involved, both motorist and non - motorist; drivers, bicyclist and any injured pedestrians. This would also include horseback riders, or persons using other means of conveyance such as Pedestrian Vehicles, horse drawn carriages, etc. It does NOT include witnesses, other bystanders, or non-injured pedestrians.

Note: The number of drivers cannot exceed the number of persons.

Rationale: Provides the total number of persons involved in a crash. Simplifies the use of the crash data file for producing reports in which the number of persons is needed. And makes it possible to calculate the number of motorist.

B27. Number of Motorist 2N (MMUCC CD3, Page 42)

Definition - (ANSI D16) A motorist is any occupant of a motor vehicle in transport.

Attributes:

0-99

Clarification - Total Number of Motorist refers to the count of occupants of motor vehicles in transport during the crash. Does not include pedestrians or bicyclist. Would include drivers of motor driven cycles, motorized skate boards, ATV's, etc.**, in transport** on the roadway during the crash. **Excludes** the occupants of motor vehicles not in Transport.

Can be derived by counting the number of motorist in the crash indicated by Occupant's of MV and Seating position and excluding the occupants of MV's not in transport listed in Person Type.

Rationale: Simplifies the use of the crash data file for producing reports in which the number of motorist is needed or in identifying crashes involving motorist.

B28. Number of Non Motorist 2N (Number of Non Motorist MMUCC CD4, Page 42)

Definition - (ANSI D16) A non-motorist is any person other than a motorist.

Attributes:

0-99

Clarification - The count of non-occupants: the total number of pedestrians and pedacyclist or occupants of motor vehicles not in transport directly involved in the crash.

Can be derived by counting the number of non-motorist.

Rationale: Simplifies the use of the crash data file for producing reports in which the number of non-motorist is needed or in identifying crashes involving non motorist.

B29. Number of Pedestrians 2N (WARS Page A8) (Not MMUCC)

Definition - (ANSI D16) A pedestrian is any person who is not an occupant.

Attributes:

0-99

Clarification - Normally pedestrians are injured when struck by a motor vehicle: otherwise they are considered witnesses to the events of the crash. Pedestrians are persons involved in a crash who were NOT occupants of a motor vehicle. A person exiting or entering a vehicle with one foot on the ground is a pedestrian. Pedestrians may be using other means of non motorized conveyance such as roller skates, wheel chairs, baby strollers, etc. and also may be in Pedestrian Vehicles. A pedestrian may also be a person asleep in his own bed in his home.

Persons on pedacycles (bicycles, tricycles etc.) are **NOT** Pedestrians they are Pedacyclist. Persons on motorized vehicles: Motorized Skate Boards, Mopeds, Snowmobiles or other vehicles are **NOT** Pedestrians they are considered occupants, drivers or passengers. The exception would be persons riding Pedestrain Vehicles which are motorized wheel chairs, handicap scooters, power chairs, etc, person utilizing this type of conveyance are still considered Pedestrians.

The NUMBER INJURED plus the NUMBER KILLED must equal or exceed the number of pedestrians in the accident. Begin 1985: this field added to Form 801.

Can be derived from Person Type . By adding attributes 1 Pedestrians, 4 Occupants of Non-motorized vehicles and 5 other pedestrians.

Rationale: Provides the number of pedestrians involved in a crash. Simplifies the use of the crash data file for producing reports in which the number of pedestrians is needed.

B30. Number of Pedacyclist 2N (Not WARS) (Not MMUCC)

Definition - (ANSI D16) A pedacyclist is any occupant of a pedacycle in transport. A pedacycle is a non-motorized other road vehicle propelled by pedaling. (Bicycle, Tricycle, Unicycle, pedalcar and others)

Attributes:

0-99

Clarification - Normally pedacyclist are injured when struck by a motor vehicle: otherwise they are considered witnesses to the events of the crash. Pedacyclist are **Non-Motorist**, persons involved in a crash who were NOT occupants of a motor vehicle. Occupants of any form of pedacycle injured or killed in a crash.

Does not include motor driven cyclist, motorized skate boards, pedestrian vehicles or Segways.

Can be derived from Person Type.

Rationale: Provides the number of pedacyclist involved in a crash. Simplifies the use of the crash data file for producing reports in which the number of pedacyclist is needed. This is a growing concern the Highway Safety communities.

B31. Number of Injuries 2N (MMUCC CD5, Page 43) (WARS Page A8)

Definition - (ANSI D16) An injury is bodily harm to a person.

Attributes:

0-99

Clarification - An injury is any injury as a result of a crash that does not result in death. An "injured" person may be a person suffering from shock, hysteria, momentary unconscious-ness, limping, etc. to those critically injured; it does **NOT** include fatalities! The number killed plus the number of injured cannot exceed the number of persons.

Rationale: Provides a count of the number of non fatal injuries that resulted from a crash. Simplifies the use of the crash data file for producing reports in which the number of non fatal injuries is needed.

B32. Number of Fatalities 2N (MMUCC CD6, Page 43) (WARS Page A8)

Definition - A traffic accident fatality includes any injured person that dies within 30 days of the date of the crash of injuries sustained in the crash.

Attributes:

0-99

Rationale: Provides a count of the number of fatalities that resulted from a crash. Simplifies the use of the crash data file for producing reports in which the number of fatal injuries is needed.

B33. Investigated at Scene 1A (WARS Page A8) (Not MMUCC)

Definition - This field indicates if an investigator was physically at the crash location, rather then a "counter report" (driver makes accident report to law enforcement agency office).

Attributes:

Y - Yes
N - No
X - Unknown

Rationale: Provides the user with data reliability confidence check. Where accurate crash location is required judgement is required in analysis of reports not investigated at the scene of the crash.

B34. Hit and Run 1A (MMUCC V23 Page 54) (WARS Page A9)

Definition - A crash may be considered hit and run if any driver involved in the event fled the scene, even if the driver later was apprehended or reported the crash at a later time.

Attributes:

N - No did not leave the scene
Y - Driver or Car and Driver Left the Scene

Clarification - A crash is considered hit and run if any driver, or car and driver fled the scene of the crash. This is in violation of State and Local ordinances. **Regardless** if the person was later apprehended, or later reported the crash to a policy agency. Exclusion would be Property Damage Only crashes that involve wild animals in rural areas which are reported after the fact. One person is assumed to be in the hit and run vehicle if no other information is available and that person is assumed to be the driver.

Rationale: Important for uniformity, quality control, and identification purposes in reported motor vehicle crashes.

B35. Police Photos 1N (Not MMUCC) (WARS Page A9)

Definition - Indicates if the investigation included photographs. In some cases, the reporting agency may NOT be the agency that took the photos; see the officer's report. If the photos were not taken by the investigating officer it is important to note the name, badge number, and agency of the officer who took the photos in the narrative.

Attributes:

1 - None
2 - Still Photos
3 - Video
4 - Both Still Photos and Video

Rationale: Used by the Highway Patrol to track crash scene photos and videos.

B36. Lighting 2N (MMUCC Light Condition C12 Page 37) (WARS Page A9)

Definition: The type/level of light that existed at the time of the motor vehicle crash.

Attributes:

1 Daylight
2 Darkness, unlighted
3 Darkness, lighted
4 Dawn
5 Dusk
6 Other
99 Unknown

Attribute Details:

Daylight - Sun up to sun down. Lighting is checked against crash time but is NOT compensated for season. If the time is greater than 0729 hours or less than 1631, then lighting must be daylight, unless the crash occurred in a tunnel.

Darkness- Unlighted - describes a condition where no "natural" light exists and no overhead "man-made" lighting is present on the roadway where the crash occurs.

Dark- Lighted - describes a condition where no "natural" light exists but there is overhead "man-made" lighting on the roadway where the crash occurs. Lighted areas will generally include streets within cities or towns and some interchange areas. This does not include lighting from store fronts, houses, parking lots, etc.

Dawn - the transition period going from "dark of night" to a daylight condition. This is typically the 30 minute period before the sun rises.

Dusk - the transition period going from a daylight condition to the "dark of night". This is typically the 30 minute period after the sun sets.

Other - if the code "Other" is used it is recommended that it be explained in the narrative.

Unknown - If the Time or Date of the Crash is unknown then the Lighting can be unknown.

Note: If a Crash time is less than 0530 or greater than 2115 then Lighting must be Darkness (Lighted or unlighted), Dusk or Dawn.

> Beginning 1992, using data from NOAA, general season edits were added for four quarters, IE November through January, February through April, May through July, and August through October.

Rationale: Important for management/administration and evaluation. Critical for prevention programs and engineering evaluations.

B37. Road Condition 2N (MMUCC Roadway Surface Condition C13 Page 37) (WARS Page A9)

Definition: The roadway surface condition at the time and place of a crash.

Attributes:

1 Dry
2 Wet
3 Icy
4 Snow
5 Mud/Dirt/Gravel
6 Slush
7 Oil/Fuel
8 Sand on Dry Pavement
9 Sand on Icy Road
10 Water (Standing or Running)
11 Other
99 Unknown

Clarification - The intent of this data element is to best describe the condition of the roadway at the crash scene. It should be coded WITHOUT regard to whether or not road surface conditions contributed to causing the crash.

Attribute Details:

Dry - describes a roadway surface that is dry.

Wet - describes a roadway surface that is covered with water from rain or melted snow.

Icy - would include a roadway surface covered with ice.

Snow - describes a roadway surface that is covered with snow or snow pack.

Mud, Dirt, Gravel - would indicate these substances presence on the surface of the roadway at the crash location, NOT the surface type of the roadway by design.

Slush - describes a roadway surface that is covered with melting snow.

Oil/Fuel - would include fuel spilled on the roadway.

Sand - would include sand on the roadway as a result of sand blown by wind, sand discharged on the roadway by highway trucks or snow plows.

Water (Standing or Running) - would describe a roadway surface that is covered with an excessive amount of water usually attributed to flooding or heavy rain and typically localized.

Other - would include spilled substances such as grain, wet leaves, and liquids other than those listed above. If the code "Other" is used it is recommended that it be explained in the narrative.

Unknown - the condition of the roadway at the time of the crash is Unknown it is recommended that it be explained in the narrative.

Note that the attributes recorded in Roadway Surface Condition in most cases should work in conjunction with Weather Conditions to describe the crash environment.

Due to the wide variance of possible road and weather conditions, this field is not checked by season.

Rationale: Important to identify and correct high wet-surface crash locations and provide information for setting coefficient of pavement friction standards. Critical for prevention programs and engineering evaluations.

B38. Weather 2N (MMUCC Weather Conditions C11 Page 37) (WARS Page A9)

Definition: The prevailing atmospheric conditions that existed at the time of the crash. This element should be coded without regard to whether or not weather conditions contributed to the cause of the crash.

Attributes:

1 Clear
2 Raining
3 Snowing
4 Fog
5 Blowing Dust/Sand/Dirt
6 Severe Wind Only
7 Blizzard
8 Sleet / Hail / Freezing rain
9 Blowing Snow
10 Cloudy/Overcast
11 Other (Severe Thunderstorms, Tornados)
99 Unknown

Attribute Details:

Clear - includes partial cloudiness if sunlight is not diminished.

Raining - precipitation is falling as rain at the time of the crash.

Snowing - is used when precipitation is falling as snow at the time of the crash.

Fog - natural condition that causes reduced visibility.

Blowing Dust/Sand/Dirt - Dust, sand or dirt set aloft by wind that causes reduced visibility. (Dust Storm)

Severe Wind Only - Strong wind conditions on an otherwise clear or overcast day. Severe Wind takes precedence over Clear or Cloudy/Overcast if the wind contributed or may have contributed to the cause of the crash.

Blizzard - extreme winter conditions where there is both precipitation falling as snow and there is blowing snow, visibility is poor. White Out Conditions are possible.

Sleet/Hail/Freezing rain (or drizzle) - this attribute would apply to conditions where precipitation is falling as ice (sleet/hail) or when it is falling as liquid (rain) and then freezing on the roadway.

Blowing Snow - applies to snow that has fallen to the ground and is set aloft by wind. Typically blowing across the roadway causing an otherwise dry road to have slick locations. Can reduce visibility.

This is a picture of blowing snow on an otherwise partly cloudy/clear day.

Cloudy/Overcast - usually "overcast" but may include partial cloudiness if light is diminished.

Other - Would include any other natural or man made atmospheric condition not listed above. Would include smoke, or smog if they reduced visibility at the time of the crash. Also would include severe weather conditions such as severe thunderstorms or tornados. If the code "Other" is used it is recommended that it be explained in the narrative.

Unknown - Used if the weather conditions at the time of the crash are unknown it is recommended that it be explained in the narrative..

Note that the attributes recorded in Weather Conditions in most cases work in conjunction with Road Condition to describe the crash environment.

Rationale: Important for management/administration and evaluation. Critical for prevention programs and engineering evaluations.

B39. Relation to Junction 2N (Page 39 C16 MMUCC) (WARS Page A10)

Definition: The location of the First Harmful Event in relation to a junction.

Attributes:

1 Non-Junction

Junction Non Interchange Area:

2 Intersection
3 Intersection-Related
4 Driveway
5 Entrance/Exit Ramp (Begin 2005)
6 Railway Grade Crossing (Begin 2005)
7 Crossover-Related (Begin 2005)
8 Business Entrance (Begin 2005)
9 Alley (Begin 2005)
10 Other Non-Interchange (Bike, Snowmobile, School crossings etc.) (Begin 2005)
98 Unknown (Begin 2005)

Junction Interchange Area (Interstates) (Begin 2005)

12 Thru Roadway (Begin 2005)
13 Intersection (Begin 2005)
14 Intersection-Related (Begin 2005)
15 Ramp (Begin 2005)
16 Other Parts of Interchange (Gore) (Begin 2005)
99 Unknown Interchange (Begin 2005)

Clarification - First Harmful Event – the first injury or damage-producing event that characterizes the crash.

Junction (From ANSI D-16) – either an intersection or the connection between a driveway access and a roadway other than a driveway access.

In Wyoming we also collect junction information when a crash occurs at the junction of an alley, crossover, or business entrance. We are interested in the intersections of these.

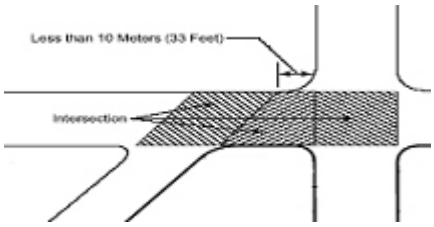
Attributes Details: Junction Non-Interchange Area

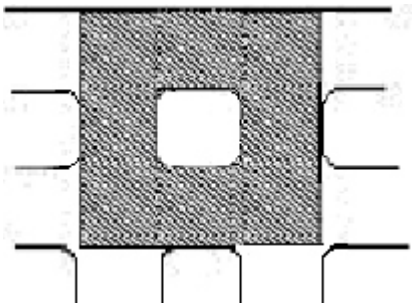
Intersection – An area which 1) contains a crossing or connection of two or more roadways not classified as driveway access and 2) is embraced within the prolongation of the lateral curb lines, or if none, the lateral boundary lines of the roadways. Where the distance along a roadway between two areas meeting these criteria is less than 10m (33ft.), the two areas and the roadway connecting them are considered to be parts of a single intersection.
See Diagram of Intersection.

INTERSECTIONS & Alley's

Less Than 10 Meters (33'); Same intersection

Diagram A





Greater Than 10 Meters (33'); Separate Intersection

Diagram B

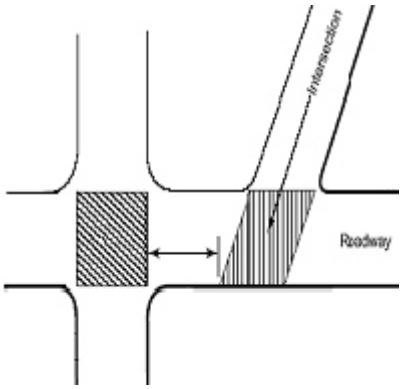


Diagram C

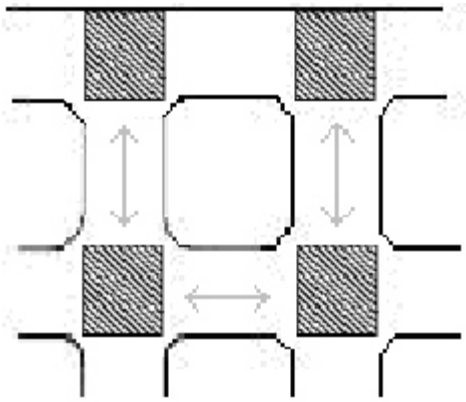
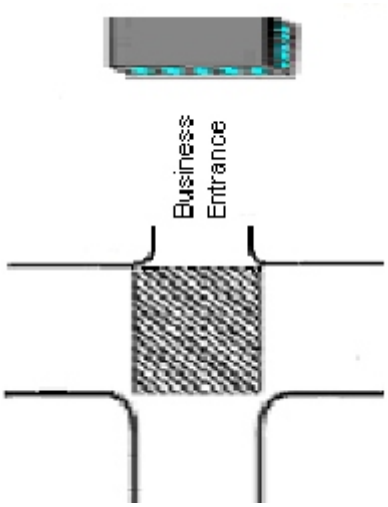
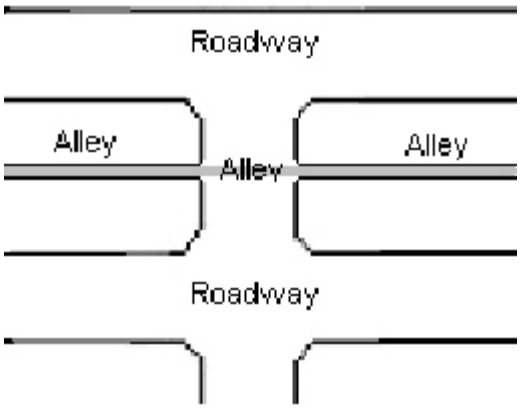


Diagram D



T Intersection with a Business Entrance

Diagram E



Alley

***Source: ANSI D16.1-1996 Manual on Classification of Motor Vehicle Traffic Accidents, Sixth Edition (Diagrams A & B)**

Note: A roadway that is connected to another roadway by a turning ramp is included. Any vehicle that strikes another vehicle during the merge from one road to another is either Intersection or Intersection Related depending upon location.

Intersection Related - Location of the crash next to an intersection, on the approach to or the exit from an intersection, and results from an action related to the movement of traffic units through the intersection.

Driveway - The intersection of a driveway and a trafficway. The first harmful event occurs on the trafficway, not on the driveway access portion of the trafficway. Driveway – a roadway providing access to property adjacent to a trafficway. Driveway includes a pasture or field access. And would include a vehicle crossing a trafficway from one driveway to another.

Clarification - 10 Foot Rule; If a crash occurs within 10 feet of the public street on a Driveway it is considered to be on Public Property and would be coded as the FHE event occurred on the trafficway.

Driveway Access-Related (from ANSI D-16): The crash results from an activity, behavior or control related to the movement of traffic units to or from the driveway access.

Entrance / Exit Ramp – Crash is located on either the entrance or exit ramp.

Railway Grade Crossing - An intersection between a roadway and train tracks which cross each other at the same level (Grade).

Cross Over Related – Crash located in the area of the median of a divided trafficway where motor vehicles are permitted to cross the opposing lanes of traffic or do a U-turn. The crash has to be related to the use of the Cross Over.

Business Entrance - The first harmful event occurs on the trafficway, not on the Business Entrance portion of the trafficway.

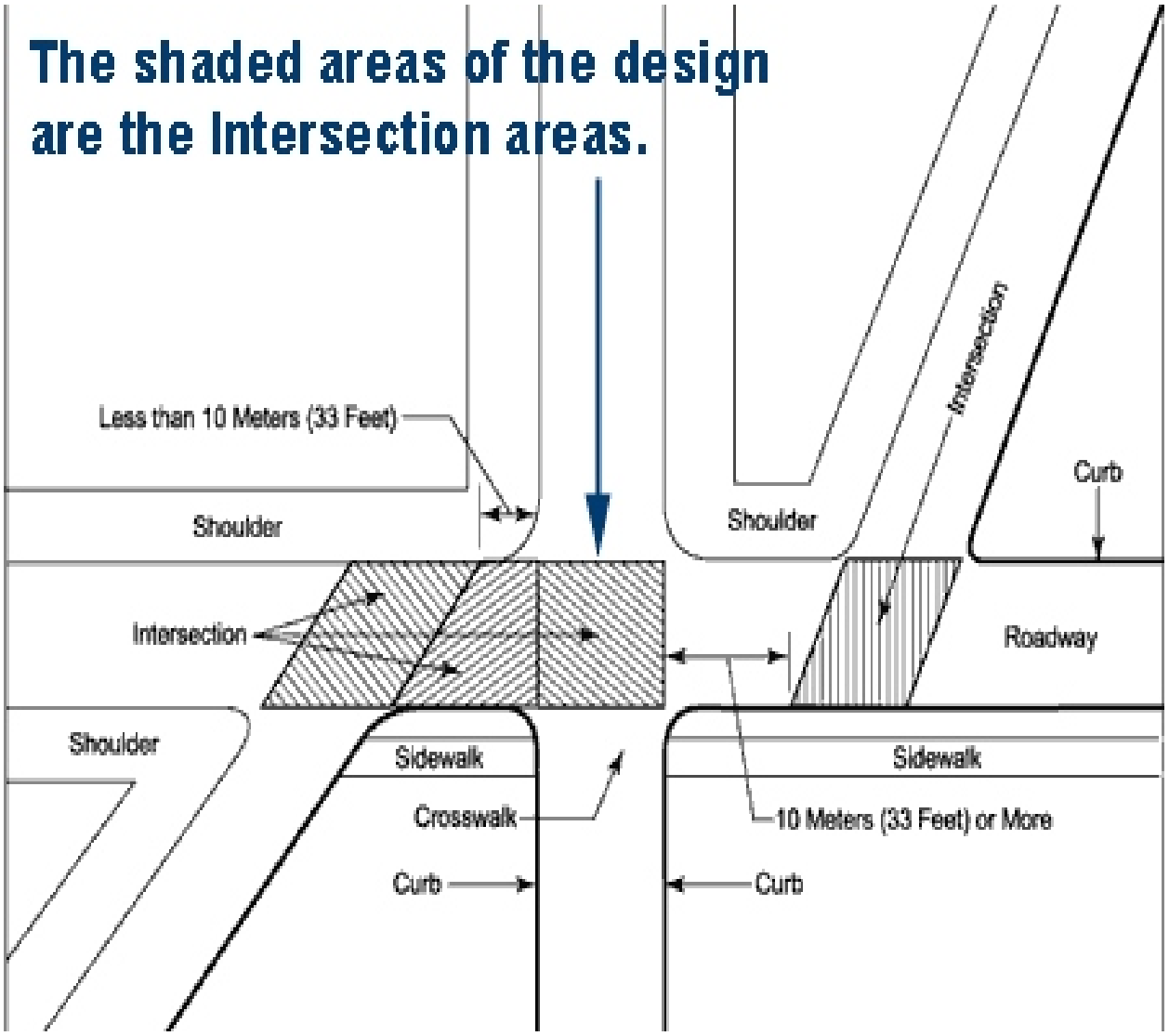
Clarification - 10 Foot Rule; If a crash occurs within 10 feet of the public street on a Business Entrance it is considered to be on Public Property and would be coded as the FHE event occurred on the trafficway.

Alley – The first harmful event occurs on the trafficway, not on the alley access portion of the trafficway.

Other Non-Interchange - includes crossings for bikes, snowmobiles, school, etc. If the **Other-Non Interchange** is used explain in the narrative.

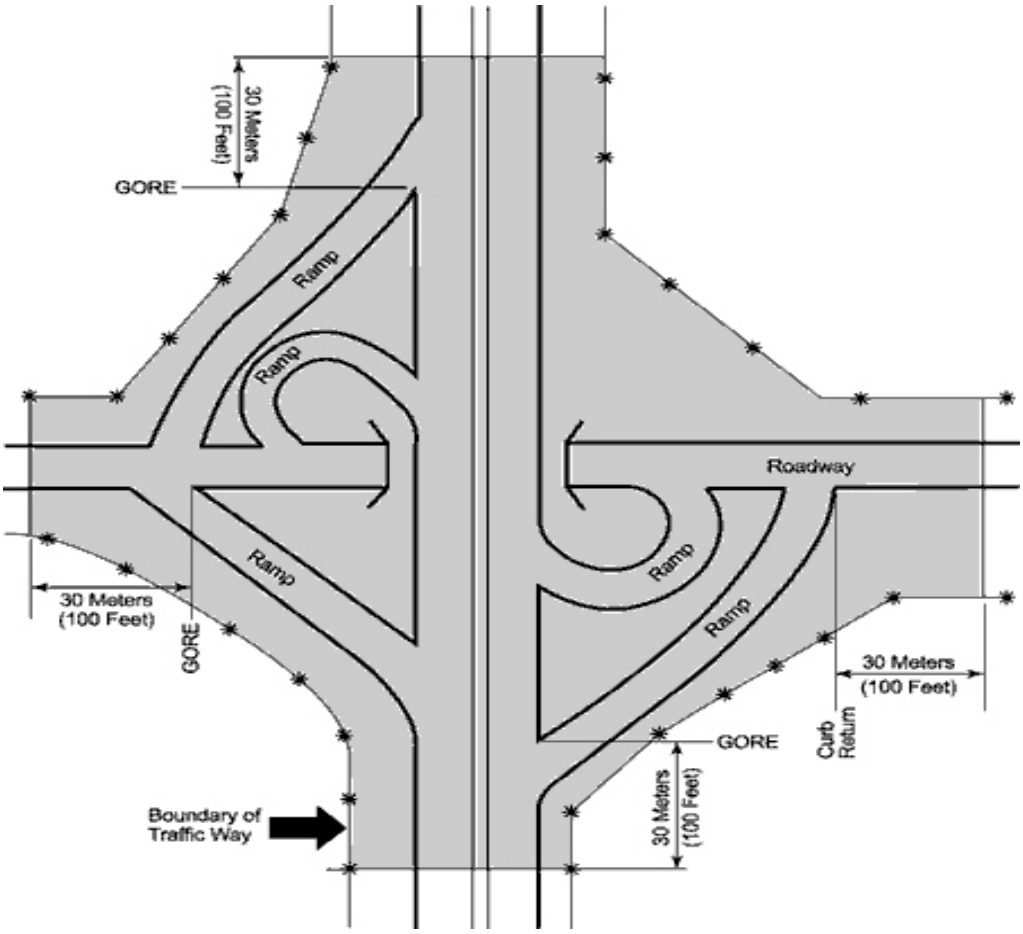
Unknown- Used if the Relation to the Junction is unknown, recommended if used it be explained in the narrative.

Diagram of an Intersection



See Definition

Diagram of an Interchange



Crashes which occur within the shaded areas of the diagram are Interchange Crashes.

Interchange – a system of interconnecting roadways in conjunction with one or more grade separations, providing for the movement of traffic between two or more roadway on different levels.

Thru Roadway – a crash would have this code when it is on the roadway in an interchange area and it does NOT occur: (1) On an Entrance / Exit ramp, or (2) In an intersection or related to an intersection or other junction.

Intersection (within an Interchange)– refers to the areas within an Interchange where roadways intersect. This would include the areas where the entrance and exit ramps met the mainline and traffic must merge and the areas where the entrance and exit ramps intersect with the adjacent roadway. Any vehicle that strikes another vehicle during the merging to or from the mainline would be Intersection or Intersection related within an Interchange depending upon location.

Intersection-Related (within an Interchange) - Location of the crash next to an intersection and results from an action related to the movement of traffic units through the intersection. This would include any vehicle changing lanes to avoid merging traffic that strikes another vehicle or causes another vehicle to leave the roadway.

Entrance / Exit Ramp – Crash is located on either the entrance or exit ramp. (within the interchange) Does not include the areas where the ramps intersect with the main line.

Other Part of Interchange (from FARS coding manual): other part of interchange refers to crashes where the First Harmful Event occurs within the boundaries of the interchange in an area other than those covered by the other interchange attributes. This would include crashes that occur in the median, roadside, gore, and off-roadway locations that are not intersection or ramp- related. If used it is recommended that it be explained in the narrative.

Unknown Interchange - is used if it is known that the crash occurred within the confines of an interchange however the Investigating Officer cannot determine where the FHE occurred. Strongly recommend an explanation in the narrative if used.

Rationale: Important for site-specific safety studies to identify locations with actual or potential problems.

B40. Type of Intersection 2N (Page 40 C19 MMUCC)

Definition: An intersection consists of two or more roadways that intersect at the same level. Would also include where the Interstate entrance and exit ramps intersect with the main line of the interstate. Linked to Highway Element.

Attributes:

1 Not an Intersection
2 4-Way Intersection
3 T-Intersection
4 Y-Intersection
5 5 point or more (greater than a 4-way)
6 Intersection as Part of Interchange
7 Roundabout
8 Traffic Circle (currently not used therefor electronically hidden)
99 Unknown

Clarification - Intersection as defined by State Statue:

The area embraced within the prolongation of connection of the lateral curb lines, or if none, then the lateral boundary of the roadway of two highways which join each other at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict;

Where a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of such a divided highway by and intersecting highway shall be regarded as a separate intersection. In the event such intersection highway also includes tow roadways 30 feet or more apart, then every crossing of two roadways of such highway shall be regarded as a separate intersection.

Attribute Details:

Not an Intersection - an area that does not meet the State Statue definition of an Intersection.

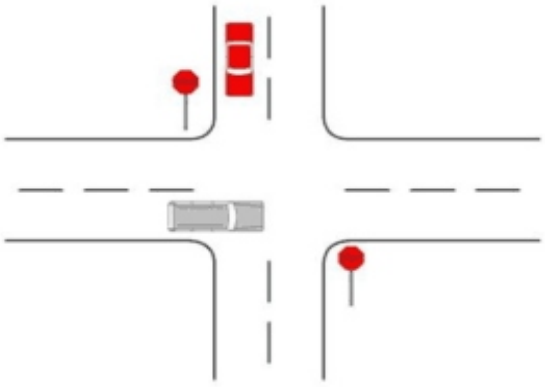
4-Way Intersection: Where two roadways intersect.

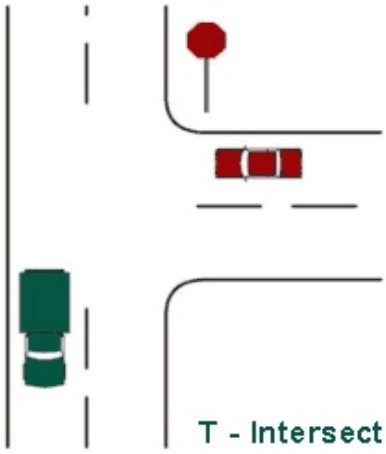
T Intersections - Intersection where two roadways connect and one roadway does not continue across the other. The roadways form a "T".

Y Intersection - Intersection where three roadways connect and none of the roadways continue across the others. The roadways form a "Y". May also be called a 2 - Way Intersection.

5 Point or More - Where more than two roads intersect.

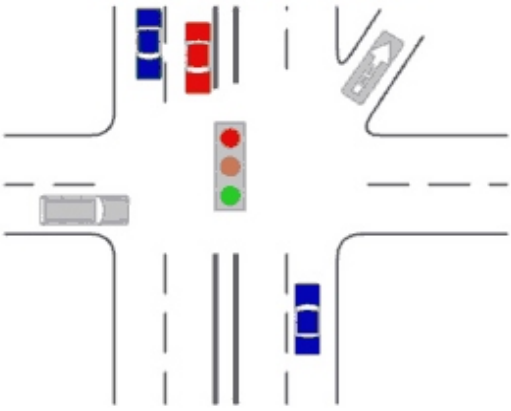
Four-Way Intersection





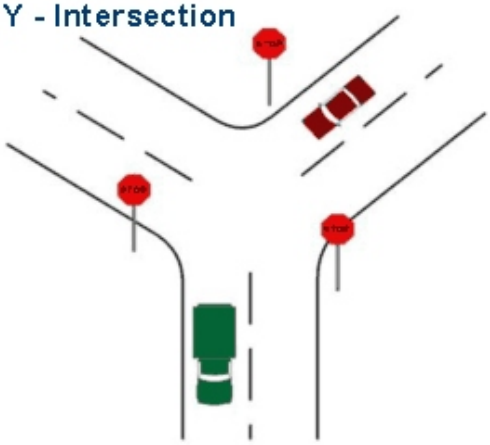
T - Intersection

Five-Point, or more



Roundabout

Y - Intersection



Roundabout: Circular traffic patterns in which yield control is used on all entries, circulating vehicles have right of way, pedestrian access is allowed only across the legs of the roundabout behind the yield line and circulation is counter-clockwise and passes to the right of the central island.

Intersection as Part of an Interchange

The outlined and shaded areas are the intersections within this interchange.

See Appendix C for more Intersection within an interchange details.

Rationale: Important for site-specific safety studies to identify actual or potential safety problem locations.

B41. First Harmful Event (FHE) 2N (Page 34 C6 MMUCC) (WARS Page A11)

Definition: The first injury or damage-producing event that characterizes the crash type. Prior to 2005 this was the first injury or damage-producing event that met the reporting threshold required by law but with the new standards we have changed it to the First Harmful Event. See Most Harmful Event and Sequence of Events.

This event may not be the first event as related to Sequence of Events , but should appear in the sequence for one of the vehicles.

Attributes:

Non-Collision

1 Overturn/Rollover
2 Fire/Explosion
3 Immersion
4 Jackknife (Begin 2005)
5 Cargo/Equipment Loss of Shift (Begin 2005)
6 Fell/Jumped from a Motor Vehicle
7 Thrown or Falling Object (Begin 2005)
8 Carbon Monoxide (CO) Poisoning
9 Injuries by being thrown against part of the vehicle
10 Other Non-Collision (Motorcycle Loss of Control) (Begin 2005)

Collision With Person, MV, or Non-Fixed Objects:

11 Pedestrian
12 Motor Vehicle in Transport on Roadway
13 Motor Vehicle on OTHER Roadway
14 Parked Motor Vehicle
15 Railway Vehicle (Train, engine, or other vehicle on Railway)
16 Pedacycle (Bicycle, Tricycle etc.)
17 Work Zone/Maintenance Equipment (Begin 2005)
18 Work Zone Channeling Device (Begin 2005)
19 Object Set In Motion By Another Vehicle (Begin 2005)
20 Other NON-Fixed Object

Animals

21 Horse
22 Cow
23 Pig
24 Sheep
25 Other Domestic Animal (Large Dog, Llama etc.)
26 Elk
27 Deer
28 Moose
29 Antelope
30 Buffalo
31 Other Wild Animal (Bear, Coyote, Eagle etc.)

Collision With Fixed Object:

32 Guardrail End
33 Guardrail Face (Begin 2005)
34 Impact Attenuator/Crash Cushion
35 Bridge Pier or Support
36 Bridge Overhead Structure (Begin 2005)
37 Bridge Rail
38 Concrete Traffic Barrier/Jersey Barrier (Begin 2005)
39 Other Traffic Barrier (includes temporary barriers) (Begin 2005)
40 Utility Pole/Light Support
41 Traffic Signal Support/Pole (Begin 2005)
42 Overhead Traffic Sign (Begin 2005)
43 Sign Support Single Pole
44 Sign Support Multiple Pole
45 Other Traffic Sign Support
46 Barricade
47 Tree/Shrubbery
48 Cut Slope
49 Road Approach
50 Rock, Boulder or Rock Slide
51 End of Drainage Pipe/Structure/Culvert
52 Building or other structure wall
53 Fence (Including Post)
54 Raised Median or Curb
55 Delineator Post
56 Earth Embankment/Berm
57 Ditch (Begin 2005)
58 Snow Embankment
59 Mail Box
60 Tunnel (Begin 2005)
61 Cattle Guard
62 Fixed Object Other
99 Unknown

Attribute Details:

NON-Collisions

Overturn / Rollover - a motor vehicle that has overturned at least 90 degrees to its side.

Fire / Explosion – a fire / explosion that was the cause or result of the crash.

Fire/ Explosion as a First Harmful Event would only occur as the first injury or damage producing event of the crash.

Immersion - an object or person covered completely by liquid.

Jackknife – an uncontrolled articulation between a tractor and trailer(s) that occurs at any time during the crash sequence.

Jackknife as a First Harmful Event would only occur as the first injury or damage producing event of the crash.

Cargo/Equipment Loss or Shift (From FARS Coding Manual) - as a (First or Most) Harmful event, this code is only used for non-collision accidents. The loss or shift would have to cause damage to the motor vehicle, or occupants, that is transporting the cargo/equipment or the cargo or equipment itself.

Fell/Jumped from Motor Vehicle (from FARS Coding Manual) – is used when a person falls or jumps (not suicide) from the vehicle. For example, a passenger of a motor vehicle in transport leans against the car door, it opens and the passenger falls out and is injured by the fall.

Thrown or Falling Object - Object that is thrown or falls on or near a motor vehicle in transport at the time of the crash.

Clarification - as a (first or most) harmful event, the thrown or falling object would have to strike a motor vehicle in transport and cause injury or damage. This attribute is also used in Sequence of Events and is not necessarily harmful in every crash.

Examples of the First Harmful Event of the crash:

(Cargo Shift) A pick-up truck hauling lumber breaks rapidly to avoid a collision which causes a board to smash the rear window and injure the driver.

(Thrown of Falling Object) A pick-up hauling lumber swerves to avoid a collision on an overpass which causes a board to dislodge and fall on a vehicle traveling on the roadway below.

Carbon Monoxide Poisoning – Driver overcome by CO. Situations where a passenger is sickened or dies due to carbon monoxide fumes leaking from a motor vehicle in transport.

Injuries by being thrown against part of the vehicle – an injury as a result of being thrown against part of the vehicle could be caused by sudden stopping of the vehicle where no collision took place. Such as an unbelted passenger hits his or her head on the roof of a vehicle an is injured, when the vehicle travels over a sharp dip in the road.

Other Non-Collision – driving off a cliff where damage is not the result of an overturn or a collision with a fixed object, This also includes when an occupant of a vehicle is run over by his/her own vehicle. When "Other" is used it is recommended that it be clarified in the narrative.

Collision With Person, MV, or NON-Fixed Objects:

Pedestrian - A person who is not an occupant of a motor vehicle in transport. Includes a person who is adjacent to the motor vehicle regardless of his/her actions.

> **Clarification - If an occupant falls from a vehicle and is struck by his/her own vehicle this is not collision with a pedestrian. (See Other Non-collision)**

Motor Vehicle in Transport - applied to motor vehicles, "in transport" means in motion or on a roadway. Inclusions: motor vehicle in traffic on a highway, driverless motor vehicle in motion, motionless motor vehicle abandoned on a roadway, disabled motor vehicle on a roadway, etc. In roadway lanes used for travel during rush hours and parking during off peak periods, a parked motor vehicle is in transport during periods when parking is forbidden.

Motor Vehicle on OTHER Roadway – a collision with a motor vehicle NOT traveling on it's intended road of travel. The most common example of this FHE is a vehicle leaves it's lane of travel on an interstate highway, crosses the median and crashes into a vehicle on the opposite roadway.

Parked Motor Vehicle - A transport motor vehicle that is not in motion or on a roadway. A motor vehicle, or any portion of the motor vehicle outline (excludes open doors, mirrors, etc.) parked on the roadway during periods when parking is prohibited is considered in transport.

Railway Vehicle - Any land vehicle (train, engine) that is (1) designed primarily for moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway. Would also include any railway maintenance vehicle traveling on the rail.

Pedalcycle - Includes bicycle, tricycle, unicycle, pedal car, etc.

Pedalcycle (from ANSI D16): Non-motorized vehicle propelled by pedaling.

Work Zone / Maintenance Equipment - Equipment related to the work zone or roadway maintenance. This would included Traffic Barrels, Cones, Barricades, Barriers, crash cushions, signs, etc that have been temporarily installed for short or long term Work Zones. It is strongly recommended this be described in the narrative.

Clarification:

Crashes can be Work Zone Related if the first harmful event occurred outside the boundaries of the Work Zone, but the Work Zone or Equipment Related were involved in the sequence of events.

Object Set in Motion By Another Vehicle – Any object on the roadway which was set in motion by another vehicle. Example: Semi strikes a rock on the road and sends it aloft into another vehicle causing enough damage to reach the reporting threshold.

Other Non-Fixed Object - A collision with an object other than a motor vehicle in transit, a pedestrian, another road vehicle in transit, a parked motor vehicle, a railway vehicle, a pedal cycle, an animal, or a fixed object. When "Other" is used it is recommended that it be clarified in the narrative.

Examples - Includes fallen tree, already laying in roadway; objects on the roadway which had fallen from a passing vehicle and had come to rest before being hit. Animals being used as transportation.

ANIMALS – Wyoming collects to the extent possible species specific crash data for both domestic and wild animals. When the species is known we collect it for Horses, Cows, Pigs, Sheep, Elk, Deer, Moose, Antelope, Buffalo, Other Wild and Other domestic animals. When "Other" is used it is recommended that it be clarified in the narrative. Animals being used for transportation would be coded as **Other Non-Fixed Object** and explained in the narrative.

Collision With FIXED Object:

Guardrail End - (See clarification below and/or description in photograph).

Clarification:
as in the photos below, the guardrail end is typically painted a warning color and may include a breakaway or redirection design feature not to be confused with an impact attenuator.

Guardrail Face – areas along a guardrail stretch other than the ends.

Impact Attenuator / Crash Cushion - a barrier at a spot location, less than 25ft. (7.6 m) away, designed to prevent an errant motor vehicle from impacting a fixed object hazard by gradually decelerating the motor vehicle to a safe stop or by redirecting the motor vehicle away from the hazard.

Bridge Overhead Structure - Any part of a bridge that is over the reference or subject roadway. In crash reporting, this typically refers to the beams or other structural elements supporting a bridge deck.

Bridge Pier or Support – Support for a bridge structure other than at the ends.

Bridge Rail - a barrier attached to a bridge deck or a bridge parapet to restrain motor vehicles, pedestrians or other users. See picture for Guardrail.

Concrete Traffic Barrier – a type of permanent median made of concrete that is usually fixed but sometimes can be moved by special equipment to shift lane direction. See Work Zone/Maintenance Equipment for barriers temporarily installed.

Other Traffic Barrier would include moveable barriers such as cones, chains, barrels, law enforcement vehicle, etc. not used for Work Zones. See Work Zone/Maintenance Equipment for barriers temporarily installed.

Utility Pole/Light Supports - Constructed for the primary function of supporting an electric line, telephone line or other electrical-electronic transmission line or cable.

Traffic Signal Support Pole - Constructed for the primary function of supporting an Traffic Signal.

Overhead Traffic Sign Support - Seen in the picture above labeled Traffic Sign Support. Constructed for the primary function of supporting an overhead traffic sign.

Sign Support Single Pole- octagonal stop sign and/or post.

Sign Support Multiple Pole- Triangular yield sign and/or post.

Other Traffic Sign Support- Constructed to support any other traffic sign. Other than overhead, stop or yield signs. If "Other" is used it is recommended that the sign be described in the narrative.

Barricade - Wyoming has Road Closure Barricades that are constructed to close the road due to inclement weather. These road closure barricades can be struck open or closed, up or down. Barricade would also included permanent barricades that close a road or indicate a dead end of a street.

Tree/Shrubbery - collision with this type of fixed object.

Cut Slope- an earth or often rock embankment that was cut away then the road was constructed.

Road Approach - an embankment that serves as the base for another roadway. Normally this involves a road base of a roadway, driveway, or access that is perpendicular "T"or "Y" to the roadway.

Rock, Boulder, or Rock Slide - Rocks or Boulders that are **NOT** on the roadway sufficient in size to produce a FHE**.**

End of Drainage Pipe/Structure/Culvert - An enclosed structure providing free passage of water under a roadway with a clear opening of less that twenty feet measured along the center of the roadway. **Structures of greater than 20 feet are bridges.**

Building or Other Structure Wall - a building or any other man made structure or wall that is not otherwise listed in the attributes of the FHE. It's recommended that this be explained in the narrative.

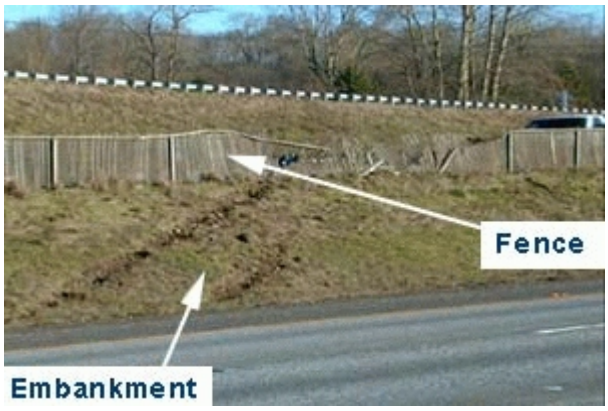
Fence - any type of fence or fence pole or post.

Raised Median or Curb - A raised edge or border to a roadway. Curbs may be constructed of concrete, asphalt, or wood and typically have a face height of less than 9 inches. But some curbs are constructed to prevent pedestrian crossing and may be higher.

Delineator Post - normally a steel post with a reflective button(s) and the top place alongside the road shoulder to denote the roads edge. Used also to mark milepost at each structure and at each milepost. Sometimes used to mark access roads and drive way locations.

Earth Embankment/Berm - any earthen feature on the roadside, except the cut slope, road approach or a wall.

Embankment (from FARS Coding Manual) – raised structures to hold back water, to carry or support a roadway, or the result of excavation or washout that may be faced with earth, rock, stone or concrete. An embankment can usually be differentiated from a wall by its incline, whereas a wall is usually vertical.



Ditch - Developed primarily to collect and move water. It is adjacent to a highway and is usually identified as the roadside.

Snow Embankment - Snow and/or ice that has been piled on the road edge by plows or by wind.

Mail Box - Mail Box or post.

Tunnel - A roadway conduit through or under an obstruction such as a mountain.

Fixed Object Other - any other fixed object not listed please explain fully in the narrative. One example was a semi pulling an over-height load crashed into an overhead structure that wasn't an overhead bridge or sign.

See Motor Vehicle Maneuver/Action, Driver Actions at Time of Crash, Sequence of Events and MOST Harmful Event.

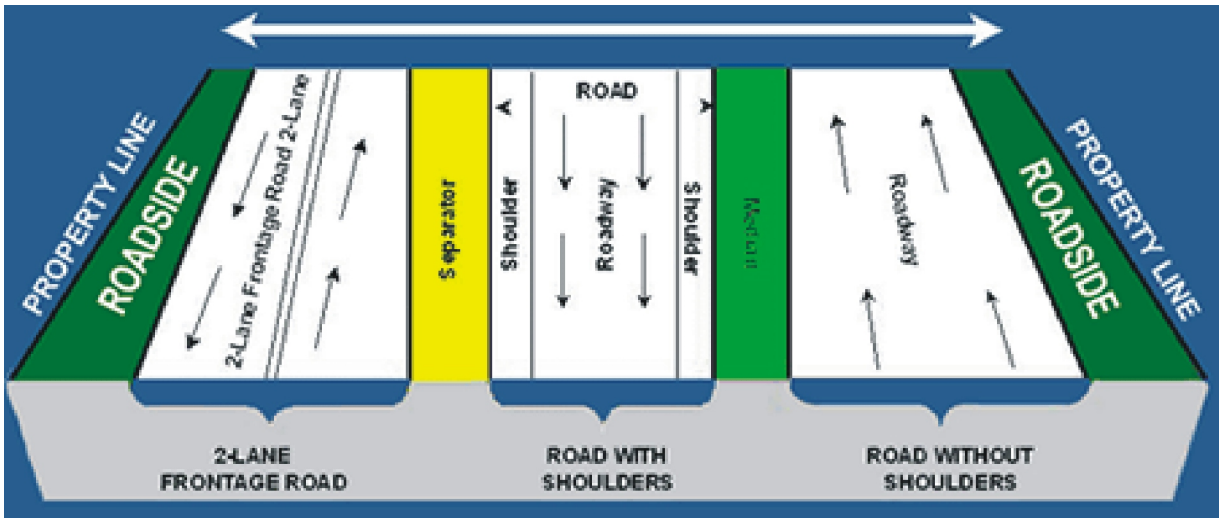
Rationale: Needed for uniformity in reported motor vehicle crash statistics, understanding crash causation, and identifying possible crash avoidance countermeasures. For analytic purposes it may be desirable to collect and use information about subsequent events, some of which may be harmful. **(See Sequence of Events)**

B42. Location Of The First Harmful Event 2N (Page 35 C7 MMUCC) (WARS Page A13)

Definition: The location of the First Harmful Event as it relates to it's position within or outside of the trafficway. Trafficway: any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

Attributes:

1 On Roadway
2 Off Roadway
3 Shoulder
4 Median
5 On OTHER Roadway
6 Outside of Right of Way
7 Gore
8 Separator
9 In Parking Lane or Zone
10 Tunnel
11 Bridge
12 Port of Entry
13 Rest Area
99 Unknown



Clarification: A Trafficway's boundaries are from property line to property line. It includes the Roadside, Roadways (travel lanes), Medians, Separators and Shoulders.

Clarification: The final resting place of the vehicle(s) is NOT a determining factor.

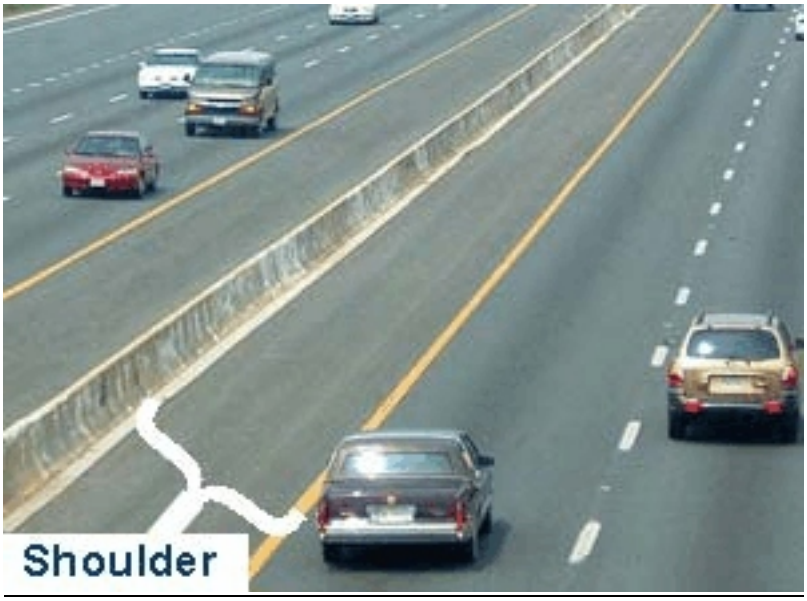
Attribute Details:

On Roadway – That part of the trafficway designed, improved, and ordinarily used for motor vehicle travel or, where various classes of motor vehicles are segregated, that part of a trafficway used by a particular class. Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles. Bridle paths, bicycle paths, and shoulders are not included in this definition.

Off Road way - Equals the Road side in this picture. From the property line of the outermost part of the trafficway to the edge of the first road. Within the Right Of Way.

Clarification (from ANSI D16): the road is that part of a trafficway which includes both the roadway and any shoulder alongside the roadway.

Shoulder – That part of the trafficway contiguous with the roadway for emergency use, for accommodation of stopped motor vehicles, and for lateral support of the roadway structure. Shoulders can be both on the inside and outside edges of some highways.

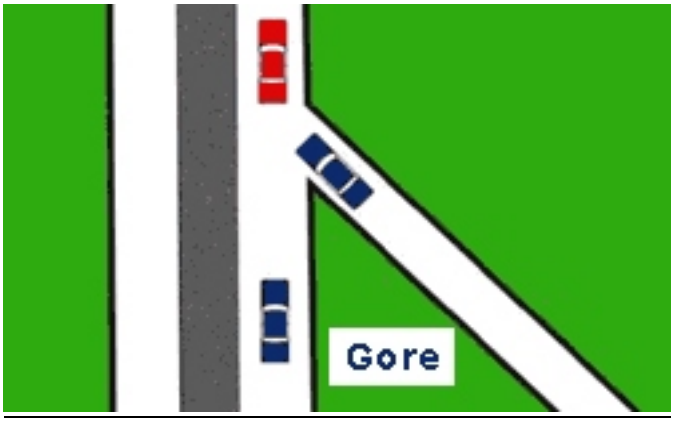


Median – An area of the trafficway between parallel roads separating travel in opposite directions. A median should be four or more feet wide.

On OTHER Roadway - First Harmful Event Occurred on a different or separate roadway. Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles. Bridle paths, bicycle paths, and shoulders are not included in this definition.

Outside Right-of-Way (Trafficway) – Not physically located on any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

Gore – An area of land where two roadways diverge or converge. The area is bounded on two sides by the edges of these roadways, which join at the point of divergence or convergence. The direction of traffic must be the same on both sides of the roadways. The area includes shoulders or marked pavement, if any, between the roadways.



Separator – A separator is the area of a trafficway between parallel roads separating travel in the same direction or separating a frontage road from other roads.

Clarification (from FARS Coding Manual): A separator may be a physical barrier or a depressed, raised, flush or vegetated area between roads.

In Parking Lane or Zone – Crash location outside the roadway.

Parking Lane or Zone (from FARS Coding Manual): Refers to a strip of road located on the roadway, or next to the roadway, on which parking is permitted. This includes curb-side and edge-of-roadway parking (for example, legal residential parking, city street parking, etc.). Sometimes a strip of roadway can be designated for parking at certain hours of the day and for regular travel at other hours. In that situation, this code would apply only during the hours when parking is permitted.

Unknown – Location of the actual FHE is unknown, recommended explanation in the narrative.

Rationale: Important to identify highway geometric deficiencies.

Contributing Circumstances Environment (Page 38 C14 MMUCC)

Definition: Apparent environmental conditions which may have contributed to the crash.

B43. Environmental Circumstances 1 2N

Clarification - The Investigating Officer's opinion of the most apparent (1st) environmental circumstance that may have contributed to this crash.

B44. Environmental Circumstances 2 2N (Same Attributes as B43. Environmental Circumstances 1)

Clarification - If applicable the Investigating Officer's opinion of a second apparent environmental circumstance used when there are multiple circumstances that may have contributed to this crash.

B45. Environmental Circumstances 3 2N(Same Attributes as B43. Environmental Circumstances 1)

Clarification - If applicable the Investigating Officer's opinion of the an additional or third apparent environmental circumstance used when there are multiple more than 2 circumstances that may have contributed to this crash. Always None if Environmental Circumstances 1 or 2 are None.

Attributes For Environmental Circumstances 1, 2 and 3:

1 Weather Conditions
2 Visual Obstruction - Buildings
3 Visual Obstruction - Other Vehicle
4 Visual Obstruction - Vegetation
5 Visual Obstruction - Hillcrest
6 Visual Obstruction - Embankment (Snow, Rock, Dirt etc.)
7 Other Physical Obstruction(s)
8 Glare (Sun or Headlight)
9 Animal(s) in the Roadway
10 Other
11 None
99 Unknown

Attributes Details of Environmental Circumstances 1, 2 and 3:

Weather Conditions - indication that the environmental conditions recorded in Weather Conditions contributed to the crash.

Visual Obstruction - Buildings - this would include any building that blocked sight or diminished visibility and thus contributed to the crash.

Visual Obstruction - Other Vehicle - this would include any other vehicle parked or in transport that blocked sight or diminished visibility and thus contributed to the crash.

Visual Obstruction - Vegetation - this would include any bush, tree, hedge, etc. that blocked sight or diminished visibility and thus contributed to the crash.

Visual Obstruction - Hillcrest - this would include any hillcrest that blocked sight or diminished visibility and thus contributed to the crash.

Visual Obstruction - Embankment (Snow, Rock, Dirt etc.) - this would include any embankment, berm, cut slope, that blocked sight or diminished visibility and thus contributed to the crash.

Other Physical Obstruction(s) - refers to any other object that blocked sight or diminished visibility and thus contributed to the crash. (e.g. curve, bridge structure, etc.) If "Other Physical" is used it is recommended that it be explained in the narrative.

Glare - a situation where: The angle of the sun greatly reduces visibility either from direct exposure or reflected light or the headlight exposure from another vehicle reduces visibility.

Animal(s) in Roadway (from ANSI D-16) - this would include live wild or domestic animals but would exclude animals pulling a conveyance or ridden animals.

Other - This is the catch all used for any other unusual condition that could diminished visibility, blocked sight and thus contributed to this crash. If "Other" is used it is strongly recommended that it be explained in the narrative.

None - this would indicate that in the Investigating Officer's opinion there were **NO** environmental circumstances that may have contributed to this crash.

Unknown - this would indicate that the Investigating Officer could not determine if there were environmental circumstances that may have contributed to this crash.

Rationale: Important to determine existence of unusual conditions that could be useful in determining the need for additional traffic control devices or geometric improvements.

Contributing Circumstances, Road 2N (Page 38 C15 MMUCC)

Definition - Road Circumstance that may have contributed to this crash.

B46. Road Circumstances 1

Clarification - The Investigating Officer's opinion of the most apparent (1st) road circumstance that may have contributed to this crash. This field is similar to the old WARS adverse road conditions and is not to be confused with ROAD CONDITION. Which is the officers opinion of apparent conditions of the road which may have contributed to the crash.

B47. Road Circumstances 2 (Same Attributes as B46. Road Circumstances 1)

Clarification - If applicable the Investigating Officer's opinion of a second apparent road circumstance, used when there are multiple circumstances that may have contributed to this crash.

B48. Road Circumstances 3 (Same Attributes as B46. Road Circumstances 1)

Clarification - If applicable the Investigating Officer's opinion of an addition or 3rd apparent road circumstance, used when there are multiple circumstances that may have contributed to this crash. Always None if Road Circumstances 1 or 2 are None.

Attributes For Road Circumstances 1, 2, and 3:

1 None
2 Road Surface Condition (wet, icy, snow, slush, etc.)
3 Debris, lose material on the surface
4 Ruts, Holes, Bumps
5 Work Zone/Construction Zone
6 Worn or Polished Surface
7 Obstruction in Roadway
8 Traffic Control Device Missing
9 Traffic Control Device Inoperative
10 Traffic Control Device Obscured
11 Shoulders (None, Low, Soft or High)
12 Non-Highway Work
13 Reduced Road Width
14 Lane Markings Missing or Faded
15 Obstructed by a Previous Crash
16 Other
99 Unknown

None - indication that there were no apparent road conditions or circumstances that contributed to this crash.

Road Surface Condition - indication that the road surface conditions recorded in Roadway Surface Condition contributed to the crash.

Debris - objects in the roadway that are not large enough to block travel but could cause damage or a loss of control. Items such as dislodged cargo, parts from a vehicle, tire tread, broken glass, or animal carcasses.

Ruts, Holes, Bumps - would include any pavement irregularity such as missing grates, speed bumps, surface raised, depressed, or previously washed out, sinkholes.

Work Zone/Construction Zone - an area of a highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles**. (See Work Zone-Related)**

This includes construction created conditions such as; lane shift or merge, inadequate lane width, change in traffic patterns, speed limit reductions.

Worn or Polished Surface - this would include the surface of the travel portion of the roadway that is extremely worn or polished, resulting in a lower coefficient of friction than a normal surface of this type.

Obstruction in Roadway - a blockage in the roadway. The object would be large enough to completely or partially block a travel lane and should due to size or shape be avoided. Items such as a fallen tree, boulder, etc.

Traffic Control Device Missing - this would include traffic control devices that are missing, signs that are down or have been stolen, etc.

Traffic Control Device Inoperative - this would include traffic control devices that are disabled or not functioning properly, power outages, damaged by a previous crash etc.

Traffic Control Device Obscured - this would include traffic control devices that are covered by foliage, or have an object large enough to partially block or completely obscure them from vision such as parked vehicle in front of them, etc.

Shoulder (none, low, soft, high) - would include inadequate width, raised or not level shoulders.

Non-Highway Work - maintenance or other types of work occurring near or in the trafficway but not related to the trafficway.

Reduced Road Width - this would include locations where the road width was temporary narrowed due to debris on the road, snow drifting, flooding etc. Does **NOT** include reduced road width for **WORK ZONES.**

Lane Markings Missing or Faded - this would include traffic control markings on the pavement that are barely visible, or have not been remarked since repair or construction.

Obstructed by Previous Crash - a blockage in the roadway caused by a previous crash. The object would be large enough to completely or partially block a travel lane and should due to size or shape be avoided. Items such as a trailer separated from its power unit or a vehicle(s) from a previous accident.

Rationale: Important to determine highway maintenance and possible engineering needs.

B49. Manner of Crash/Collision Impact 2N (Page 35 C8 MMUCC)

Definition - Identifies the manner in which two motor vehicles in transport initially came together without regard to the direction of force. This data element refers only to accidents where the first harmful event involves a collision between two motor vehicles in transport.

This data element refers only to crashes where the **first harmful event involves a collision between two motor vehicles in transport.**

Related definitions from MMUCC:

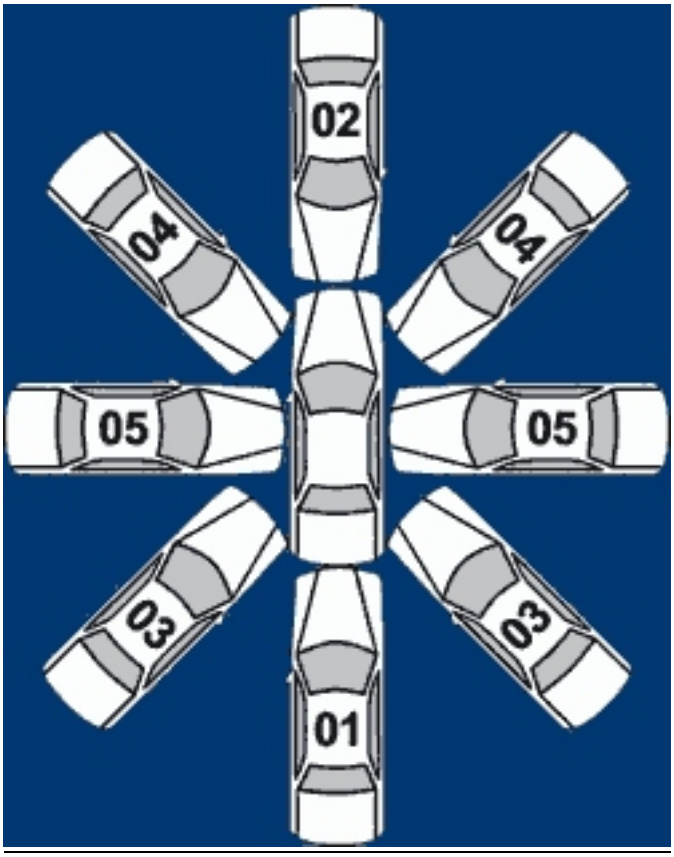
Harmful Event – occurrence of injury or damage

Motor Vehicle In transport – any motorized road vehicle not operated on rails…in motion or on a roadway…(See Motor Vehicle Type)

Attributes:

1 Not a Collision Between Two Motor Vehicles in Transport
2 Rear End (Front to Rear)
3 Head On (Front to Front)
4 Angle Same Direction (Front to Side)
5 Angle Right (Front to Side, includes broadside)
6 Angle Direction Not Specified
7 Sideswipe Same Direction (Passing)
8 Sideswipe Opposite Directions (Meeting)
9 Rear to Side (Backing)
10 Rear to Rear (Backing)
11 Rear to Front (Backing)
12 Other
99 Unknown

Attribute Details:



Rear End (Front-to-Rear) – 01

Head-on (Front-to-Front) - 02

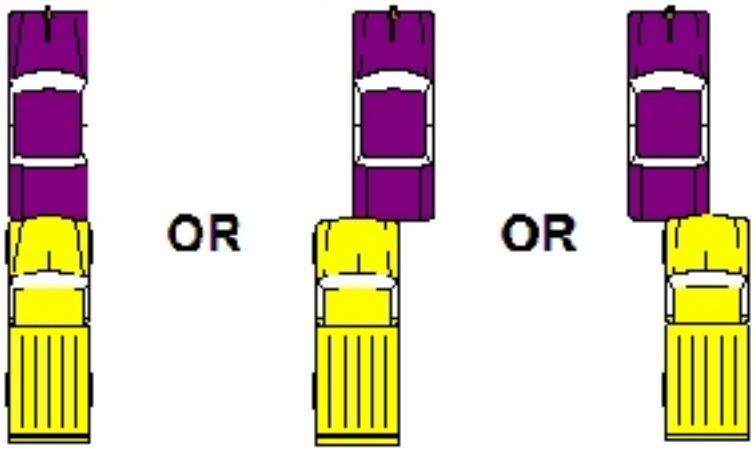
Angle (Front-to-Side), Same Direction - 03

Angle (Front-to-Side), Opp. Direction - 04

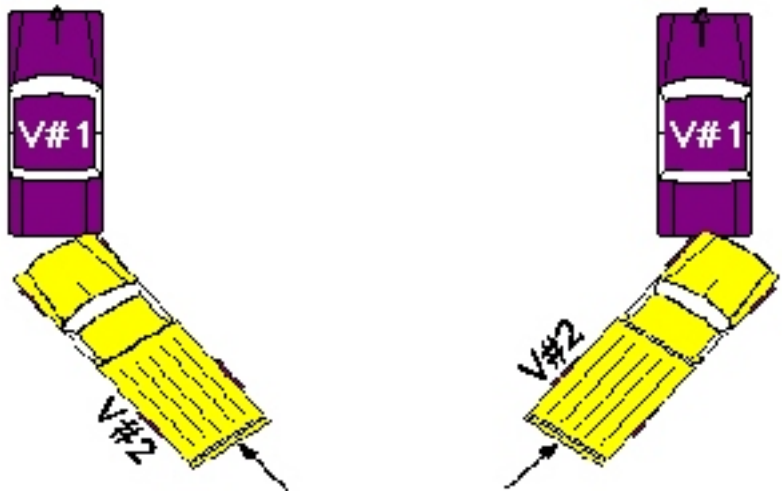
Angle (Front-to-Side), Right Angle / Broadside - 05

Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with Motor Vehicle Maneuver/Action and Direction of Force to describe the crash.

Rear End - A crash where the front of one motor vehicle impacts the rear of another motor vehicle. Also referred to as front-to-rear.

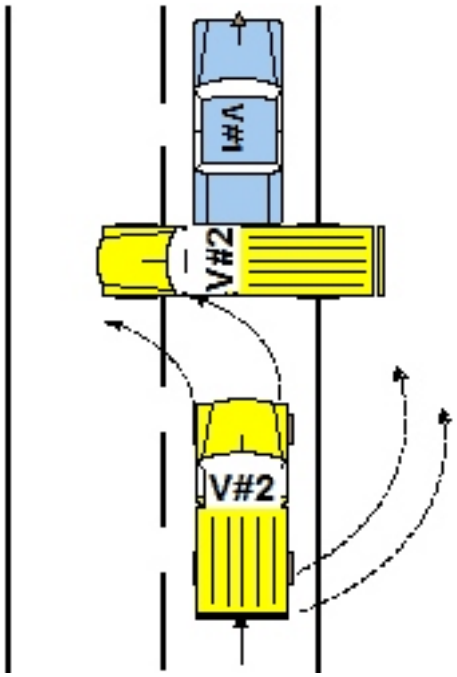


Rear End / Front-to-Rear Includes:



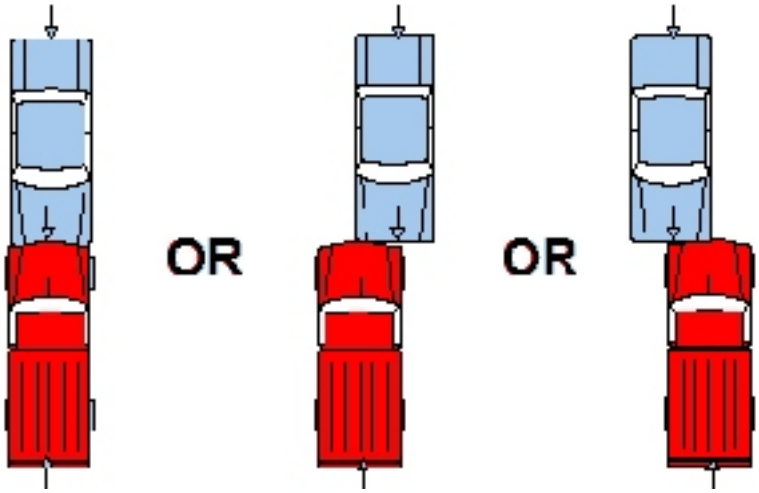
Exclusions to Rear End / Front-to-Rear:

EXCLUDES Below Example (This would be Rear-to-side)



Head-On / Front-Front

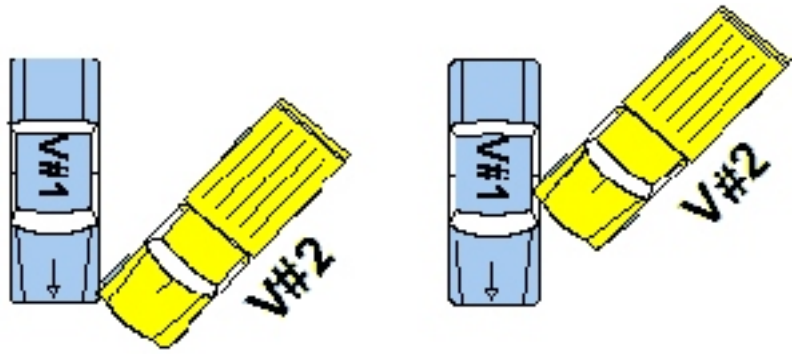
Head-On: A crash where the front ends of two motor vehicles impact together. This also is referred to as front-to-front.



Angle Same Direction / Front-Side

Angle Manner of Impact - A crash where two motor vehicles impact at an angle. For example, the front of one motor vehicle impacts the side of another motor vehicle.

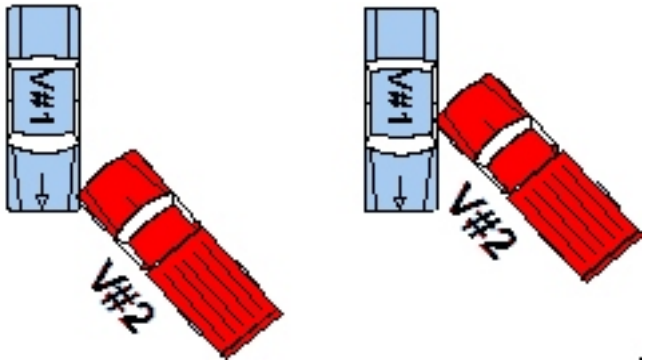
(Front-to-Side Same Direction from FARS Coding Manual): angle crashes where the front of one vehicle contacts at <u>any point</u> along the side of another in the first harmful event and the orientation of the vehicles at impact is in the same direction. This does <u>not</u> include right angles or broadside crashes.



Angle Opposite Direction / Front-Side

Angle Manner of Impact - A crash where two motor vehicles impact at an angle. For example, the front of one motor vehicle impacts the side of another motor vehicle.

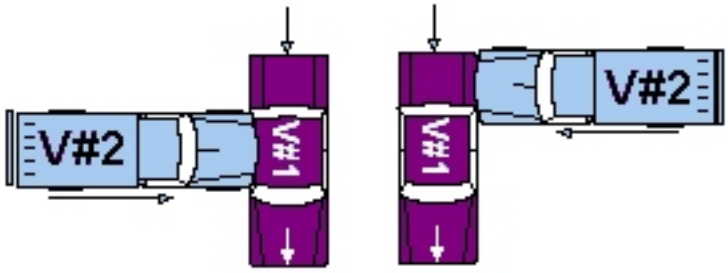
(Front-to-Side Opposite Direction from FARS Coding Manual): angle crashes where the front of one vehicle contacts at <u>any</u> point along the side of another in the first harmful event and the orientation of the vehicles at impact is in the opposite direction. This does <u>not</u> include right angles or broadside crashes.



Angle Right Angle / Front-Side (includes Broadside)

Angle Manner of Impact - A crash where two motor vehicles impact at an angle. For example, the front of one motor vehicle impacts the side of another motor vehicle.

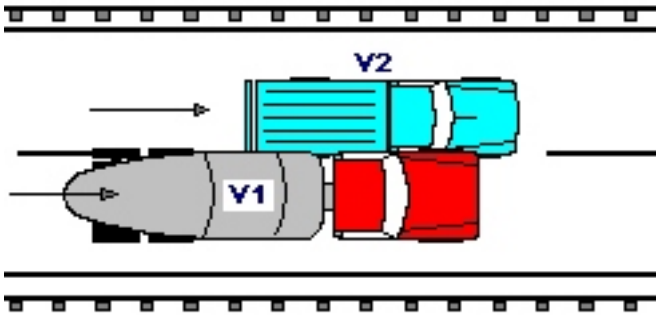
(Front-to-Side Right Angle from FARS Coding Manual): is used for "Broadside" or "T-Bone" crashes in which front-to-side contact is made, and the vehicles are at a right-angle position. The front of one vehicle can make contact anywhere along the side of the other, not just at Clockpoints "03" or "09".



Sideswipe – Same Direction

Sideswipe – Same Direction: Crashes where two motor vehicles are traveling the same direction and impact on the side.

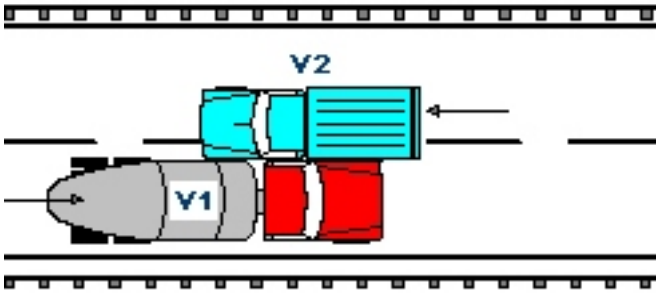
(Sideswipe – Same Direction from FARS Coding Manual): is used when the initial engagement does not overlap the corner of either vehicle so that there is no significant involvement of the front or rear surface areas. There is no pocketing of the impact in the suspension areas as the impact swipes along the surface of the vehicle parallel to the direction of travel. There is a low retardation of force along the surface of the vehicle. This must be true for both vehicles involved in the collision.



Sideswipe – Opposite Direction

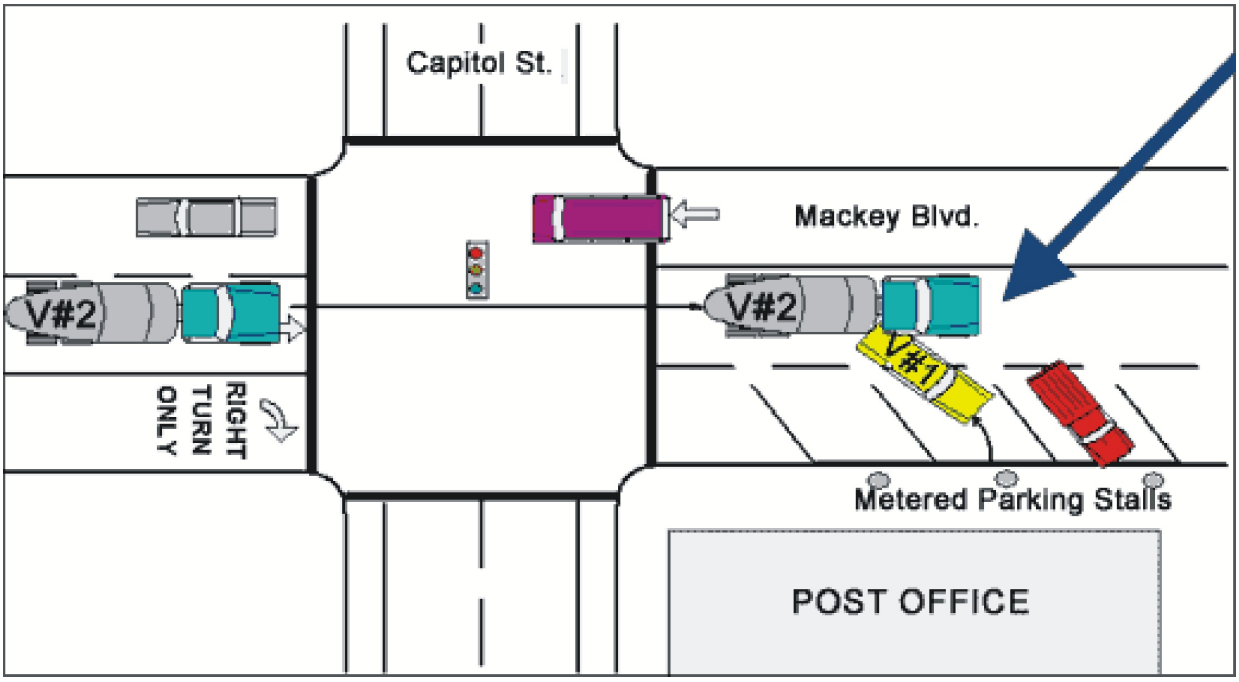
Sideswipe – Opposite Direction: Crashes where two motor vehicles are traveling the opposite direction and impact on the side.

(Sideswipe – Opposite Direction from FARS Coding Manual): is used when the initial engagement does not overlap the corner of either vehicle so that there is no significant involvement of the front or rear surface areas. There is no pocketing of the impact in the suspension areas as the impact swipes along the surface of the vehicle parallel to the direction of travel. There is a low retardation of force along the surface of the vehicle. This must be true for both vehicles involved in the collision.



Rear-to-Side

Rear-to-Side: A crash where the back of one motor vehicle impacts the side of another motor vehicle.



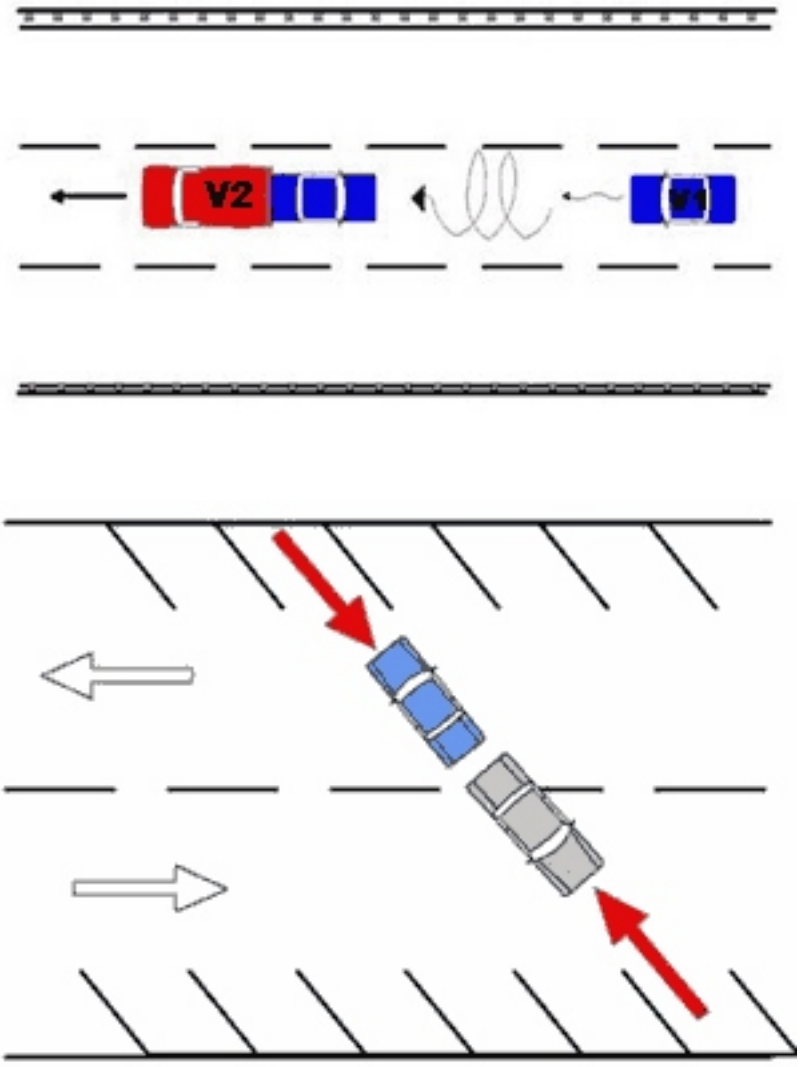
vehicle #1 backing out of a parking space and striking vehicle #2 in the side

Rear-to-Rear

Rear-to-Rear: A crash where the backs of two motor vehicles impact together.

This impact type could occur as in the first example below where the car loses control and spins 180 degrees impacting the rear of the truck.

Another possible scenario would be two vehicles backing from roadside parking and impacting rear-to-rear.



Other:

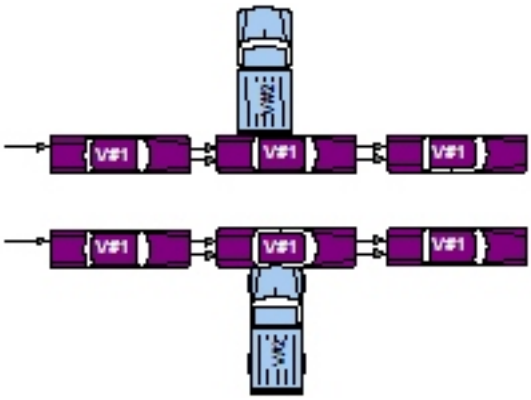
(Other from FARS Coding Manual): is used for collisions where one vehicle's end swipes (end-swipe) another vehicle instead of their sides swiping. Also, this attribute should be used for any collision between two motor vehicles where the collision is not described by the other attributes.

Examples include:

When one vehicle is airborne and makes contact with its front to the other vehicle's hood or top.

Cargo or other load on one motor vehicle in transport shifts an lands or is thrown onto/into another vehicle.

A vehicle occupant or motorcyclist falls or is thrown from a vehicle striking or is struck by another vehicle.



If "Other" is used it MUST be described in the narrative.

Not Collision between two Motor Vehicles in Transport - Used if there is not a collision between two Motor Vehicles.

Unknown - If there is a collision but the Manner of Collision cannot be determined, must be described in the narrative.

B50. Direction of Force 1 N

Definition - This is the direction of forces in which two motor vehicles in transport came together without regard to the position or attitude of the vehicles at the time of collision.

Clarification - The key is the *Direction or Motion or Force* of the vehicles involved at collision. The collision forces are broken down into five categories.

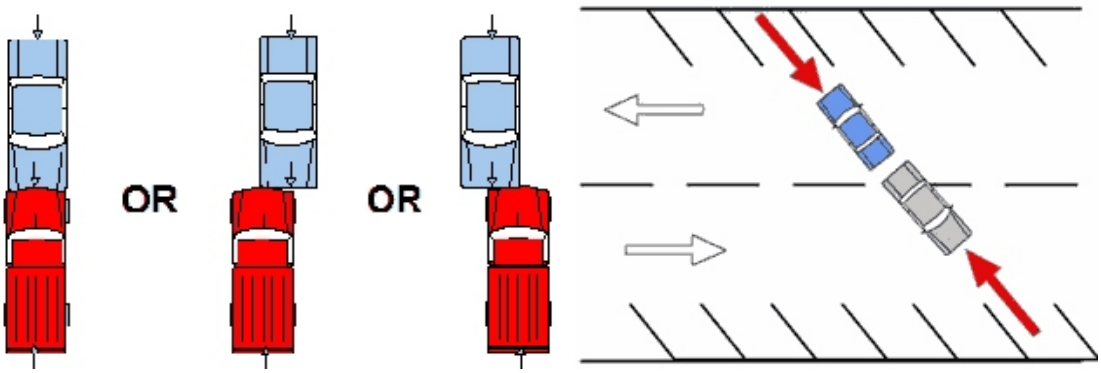
In the event of a stopped or parked motor vehicle on the roadway the position of the stopped vehicle will determine the direction of force. (Example if a parked MV is hit front to front by another MV it would be Opposing Direction of Force. A moving MV's front hits the back of a parked MV then this would be the Same Direction of Force.)

Attributes:

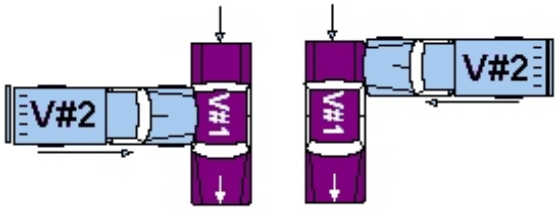
1 Opposing (Opposite Direction within 15 degrees of the vector direction)
2 Angle (vector forces exceeds 15 degrees)
3 Same (vector forces in the same direction within 15 degrees)
4 Meeting (glancing collision from opposite direction)
5 Passing (glancing collision from same direction)
99 Unknown

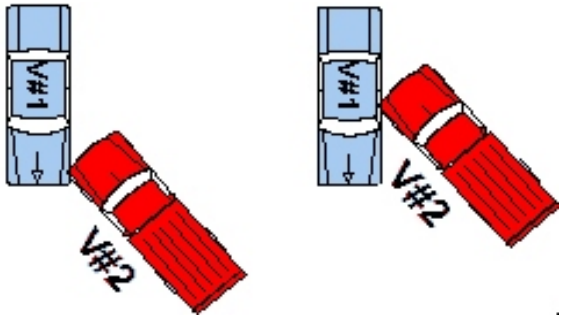
Attribute Details:

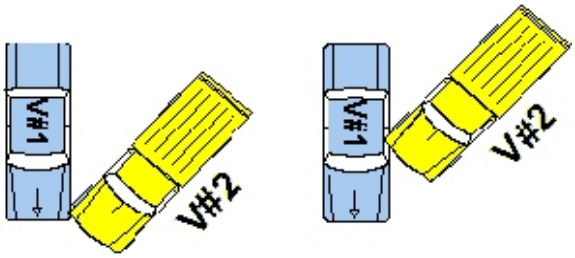
Opposing Directions of Force:



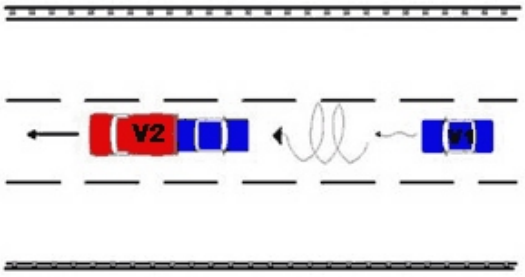
Angle Directions of Force:

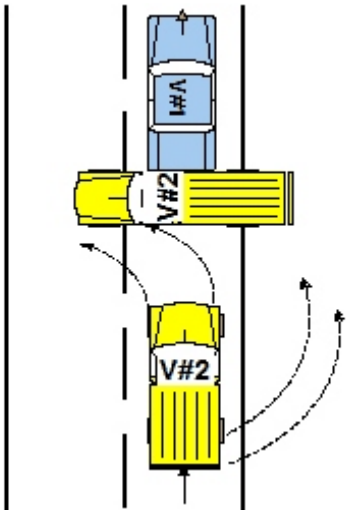


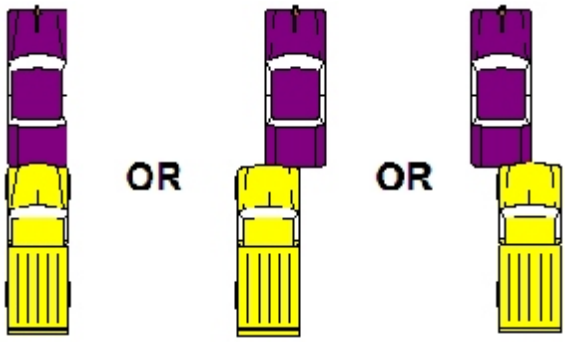




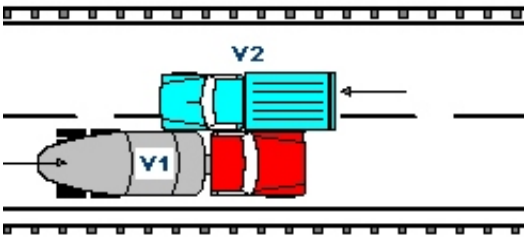
Same Direction of Force:



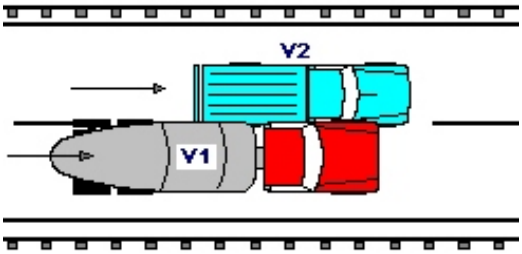




Meeting Direction of Force:



Passing Direction of Force:



Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with Motor Vehicle Maneuver/Action and Manner of Collision to describe the crash.

B51. Date and Time Crash Reported to Law Enforcement 12A (Page 36 C10 MMUCC)

Definition - The date(year, month and day) and time (00:00 - 23:59) at which the law enforcement agency was notified. May be different than the Crash Date.

Attributes:

YYYYMMDDHHMM
Unknown

Rationale: Useful as a surrogate for time of crash and to calculate response time.

B52. Police Arrive Time 12A (Form 802 Only) (WARS Page A19)

Definition - Date and Time Police Arrived on the scene

Attributes:

YYYYMMDDHHMM
Unknown

Rationale: Internal Use.

B53. Police Response Time 3N (Minutes) (Form 802 Only) (WARS Page A19)

Definition - Derived field from B51 and B52 in minutes

Rationale: Internal Use.

B54. Investigating Agency 1 N (WARS Page A17)

Definition - Identification of which Law Enforcement Agency Investigated this crash.

Attributes:

1 City Police
2 Sheriff's Office
3 BIA
4 Forest Service
5 Campus Police
6 Wyoming Highway Patrol
7 Other

Rationale: Internal Use

B55. Badge Number 4A (WARS Page A17)

Definition - Identification of which Law Enforcement Officer Investigated this crash.

Rationale: Internal Use

B56. Investigators Report Date 6N (WARS Page A17)

Definition - The actual Date that the Investigating Officer completed the report. May differ from the Crash Date and/or the date the crash was reported to law enforcement.

Same format as Crash Date, the date the report was completed.

Rationale: Internal Use

B57. Wyoming Highway Patrol Division 2N (WARS Page A17)

See Appendix H. Can be linked and derived.

Rationale: Internal Use

B58. Emergency Medical Services Notified 12A (Form 802 Only) (WARS Page A19)

Definition - The Date and time EMS was notified.

Attributes:

YYYYMMDDHHMM
Not Applicable
Unknown

Rationale: Useful to calculate response time.

B59. EMS Arrive Time: 12A (Form 802 Only) (WARS Page A19)

Definition - The Date and time EMS arrived at the scene of the crash.

Attributes:

YYYYMMDDHHMM
Not Applicable
Unknown

Rationale: Useful to calculate response time.

B60. EMS Response Time: 3N (Form 802 Only) (WARS Page A19)

Definition - Derived field from B58 and B59 in minutes

Rationale: Internal Use

B61. EMS Hospital Arrival Time: 4N (Form 802 Only)

Definition - Date and time that EMS arrived with injured or fatalities to the hospital. Calculated in minutes.

Attribute:

HHMM
Blank Unknown

B62. Highway Route Sign 5A (Related to MMUCC C5, Page 33) (WARS Page A18)

Definition - Actual Route Sign as seen from the highway.

Rationale: Useful as alternate means of determining crash location. Accurate Crash Location is critical.

B63. Functional Classification 2N (WARS Page A18) (MMUCC RL5 Page 77)

Definition - The character of service for function of streets or highways.

Attributes:

Rural:

1 Principal Arterial - Interstate
2 Principal Arterial - Other
3 Minor Arterial
4 Major Collector
5 Minor Collector
6 Local

Urban:

11 Principal Arterial Interstate
12 Principal Arterial Freeways and Expressways
14 Principal Arterial Other
16 Minor Arterial
17 Collector
19 Local

Should be able to derive or link.

Rationale: Important for comparing crash rates of highways of similar design or use.

B64. School Bus Related 1N (Page 40 C18 MMUCC)

Definition: Indicates if a school bus or motor vehicle functioning as a school bus for a school-related purpose is involved in the crash. The "school bus", with or without a passenger on board, must be directly involved as a contact motor vehicle or indirectly involved as a non-contact motor vehicle (children struck when boarding or alighting from the school bus, two vehicles colliding as a result of the stopped school bus, etc.)

A Shool Bus is defined by ANSI D-16 is considered as school bus with or without pupils on board.

A motor vehicle is not a school bus while on trips which involve the transportation exclusively of other passengers or exclusively for other purposes. Example, a school bus being used to transport non-school pupils such as senior citizens or migrant workers.

Other vehicles that do not meet the ANSI D16 definition of a school bus but are functioning as a school bus are only considered a school bus while transporting school age children. The white passenger van seen in the picture below is an example of an other vehicle that is functioning as a school bus and would be considered a school bus if transporting any school pupile at or below the 12th grade level to or from public or private school or school related activity.

School Bus Defined

> **School Bus (from ANSI D16) -** a motor vehicle used for the transportation of any school pupil at or below the 12th-grade level to or from a public or private school or school-related activity. A motor vehicle is not a school bus while on trips which involve the transportation exclusively of other passengers or exclusively for other purposes.

A motor vehicle is a school bus only if it is externally identifiable by the following characteristics:

1) It's color is yellow
2) The words "school bus" appears on the front and rear
3) Flashing red lights are located on the front and rear
4) Lettering on both sides identifies the school or school district served or the company operating the bus.

This would include any automobile, bus, van, utility vehicle, truck or other vehicle which meets the above criteria. And any such vehicle going tp pick up or returning from delivering school pupiles.

NOTE: Other vehicles that do not meet the ASNI D-16 definition od a school bus but are functioning as a school bus are only considered a school bus while transporting school aged children to or from public or private school or school related activity.

School Bus Accident (from ANSI D-16) : A motor vehicle accident in which a school bus, with or without a pupil on board, is involved directly as a contact vehicle or a motor vehicle accident or an other-road-vehicle accident in which a school bus, with or without a pupil on board, is involved indirectly as a non-contact vehicle.

Includes: (Yes)

A collision involving a motor vehicle in transport in which one or more school buses strike(s) or are (is) struck by another road vehicle (directly involved).

A collision accident or non-collision accident involving a motor vehicle in transport passing a school bus, stopped and with its red lights flashing. (The school bus is a non-contact vehicle indirectly involved.)

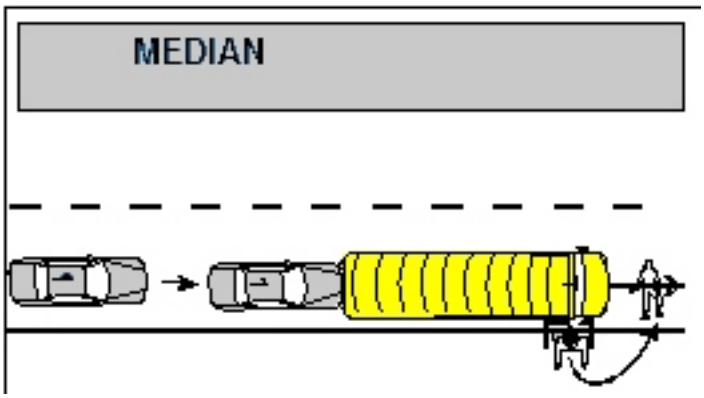
Excludes: (No)

A collision accident or non-collision accident involving a motor vehicle which is normally used as a school bus, but is carrying only senior citizens when the collision occurs.

Attributes:

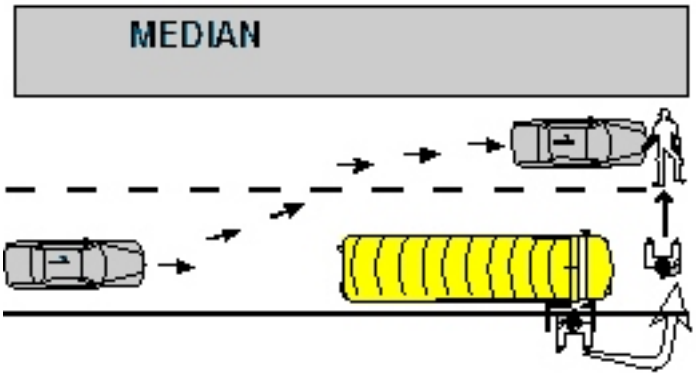
1 No
2 Yes, School Bus Directly Involved
3 Yes, School Bus Indirectly Involved

Element Attribute Examples: Yes



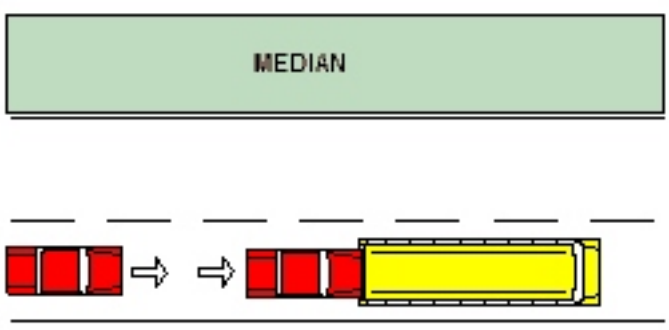
Yes, Directly Involved:

VEHICLE STRIKES SCHOOL BUS AND DEPARTING CHILD IS STRUCK.



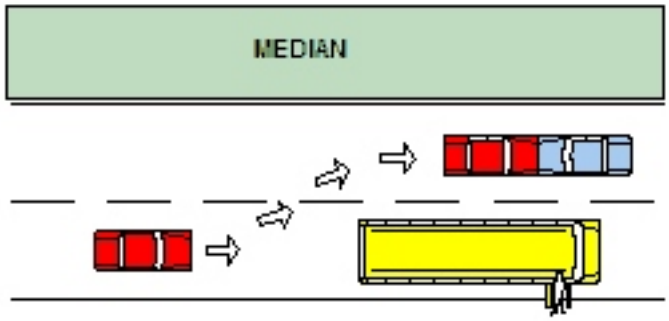
Yes, Indirectly Involved:

VEHICLE PASSES STOPPED SCHOOL BUS WITH CHILDREN; STRIKES A PEDESTRIAN.



Yes, Directly Involved:

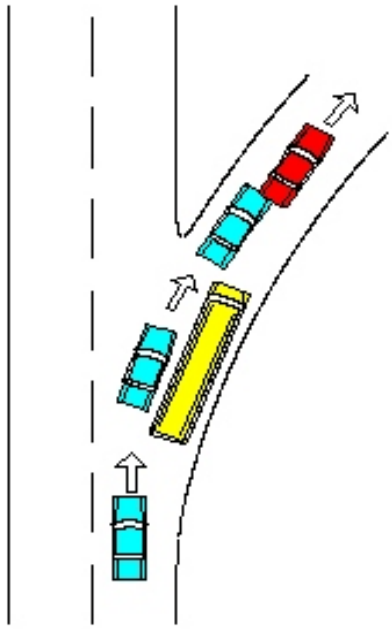
VEHICLE STRIKES SCHOOL BUS IN THE REAR WHILE BUS IS TRANSPORTING CHILDREN.



Yes, Indirectly Involved:

A VEHICLE PASSES A STOPPED SCHOOL BUS WITH LIGHTS ACTIVATED AND CHILDREN BOARDING AND STRIKES ANOTHER VEHICLE.

Element Attribute Examples: No



No:

Vehicle strikes another vehicle because of visual obstruction from a phantom school bus traveling on the roadway.

Rationale: Important in determining where and how school children are at the greatest risk of injury when being transported by school bus and the extent to which school bus operations affect overall traffic safety.

B65. Work Zone Related 1A (MMUCC C19 Page 40 and 41)(SEE Appendix E Work Zone)

Definition - A crash occurs in or related to a construction, maintenance, or work zone, whether or not the workers were actually present at the time of the crash. Work Zone Related crashes may also include those MV stopped or slowed because of the work zone, even if the event occurred before the first warning sign. Needs to be collected at the scene because work zones are short term or moving operations.

Work Zone - Related
(Construction/Maintenance/Utility)

Definition: Work Zone

Work Zone - An area of a trafficway with highway construction, maintenance or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign or flashing lights on a vehicle to the "END OF WORK" sign or the last traffic control device. A work zone may be for short or long durations and may include stationary or moving activities.

Definition: Work Zone Crash

Work Zone Crash - a traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior or control related to the movement of the traffic units through the work zone. Includes collision and

non-collision crashes occurring within the signs or markings indicating a work zone or occurring on approach to, exiting from or adjacent to work zones that are related to the work zone.

For example:

An automobile on the roadway loses control within a work zone due to a shift or reduction in the travel lanes and crashes into another vehicle in the work zone.

A van in an open travel lane strikes a highway worker in the work zone.

A highway construction vehicle working on the edge of the roadway is struck by a motor vehicle in transport in a construction zone.

A rear-end collision crash occurs before the signs or markings indicating a work zone due to vehicles slowing or stopped on the roadway because of the work zone activity.

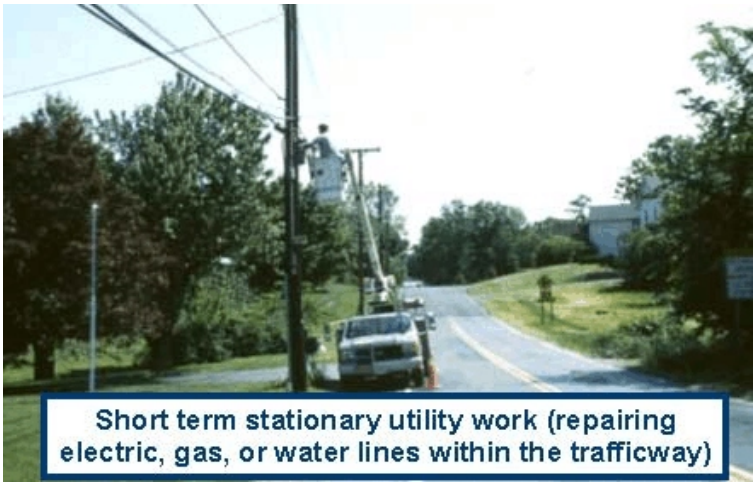
A pickup in transport loses control in an open travel lane within a work zone due to a shift or reduction in the travel lanes and crashes into another vehicle which exited the work zone.

A tractor-trailer approaching an intersection where the other roadway has a work zone strikes a pedestrian outside the work zone because of lack of visibility caused by the work zone equipment. Excludes single-vehicle crashes involving working vehicles not located in trafficway.

A highway maintenance truck strikes a highway worker inside the work site.

A utility worker repairing the electrical lines over the trafficway falls from the bucket of a cherry picker.

Work Zone - Inclusions



Excludes - Private construction, maintenance or utility work outside the trafficway.

Attributes:

Was the crash in or near a construction, maintenance, or work zone?

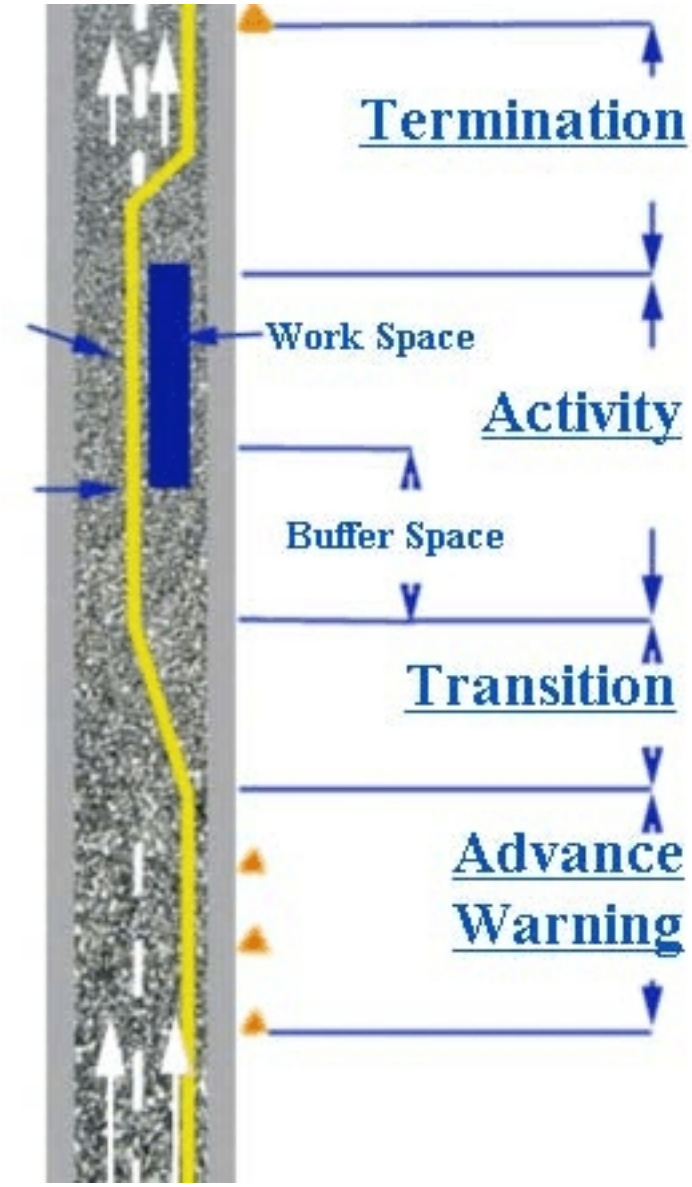
Y Yes
N No
X Unknown

B66. Work Zone Location 2 2N

Location to the Crash:

1 Before the First Warning Sign
2 Advance Warning Area
3 Transition Area
4 Activity Area
5 Termination Area
99 Unknown

Location of Crash - Diagram of a Work Zone Area



Termination Area – traffic resumes normal path

Activity Area – where work takes place
Work Space – space for workers, equipment, and material storage
Buffer Space – provides protection for traffic and workers
Transition Area – moves traffic from normal path

Advance Warning Area – notifies traffic of what to expect ahead


Advance warning area


Transition Area


Termination Area


ROAD CLOSED
ROAD CLOSED
Activity Area

B67. Type of Work Zone 3 2N

Type of Work Zone:

1 Lane Closure
2 Lane Shift or Crossover
3 Work on Shoulder or Median
4 Intermittent or Moving Work
5 Other
99 Unknown

Intermittent or Moving Work

Work on Shoulder / Median

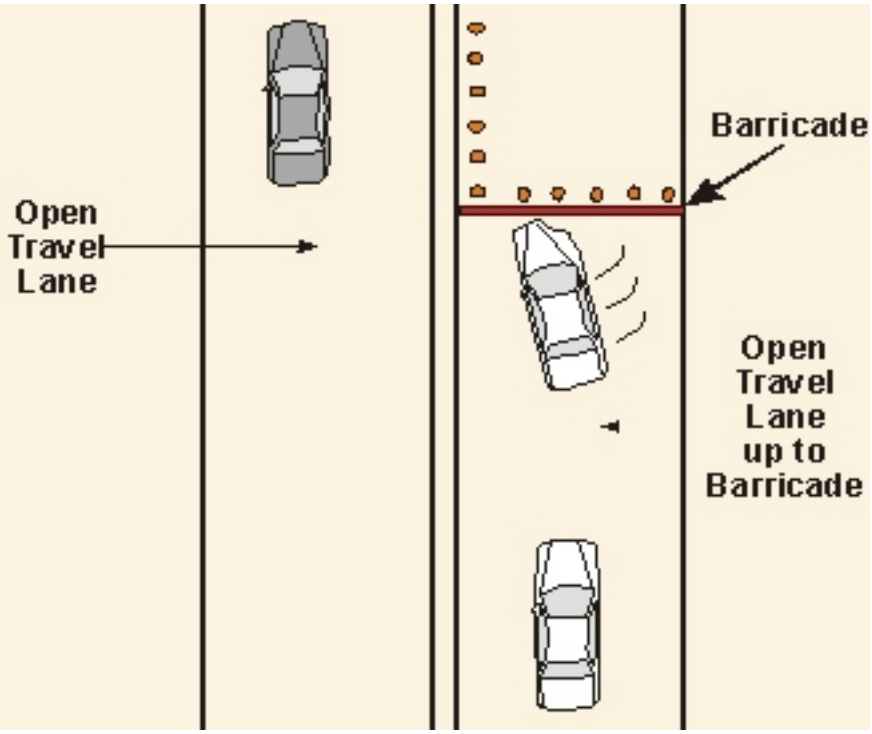
B68. Work Zone Workers Present 1A

Workers Present:

Y Yes
N No
X Unknown

Practical Examples

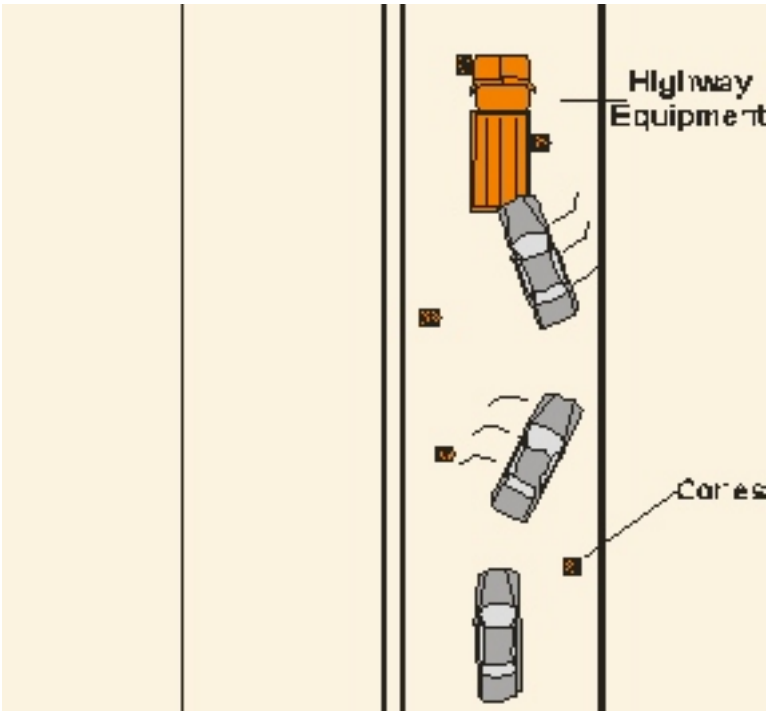
The unstabilized situation begins on a portion of the trafficway open to the public and the first harmful event occurs in construction area closed by barricades or cones.



Motor Vehicle Accident? YES
Work Zone Accident? YES

Location? Activity Area
Type? Lane Closure

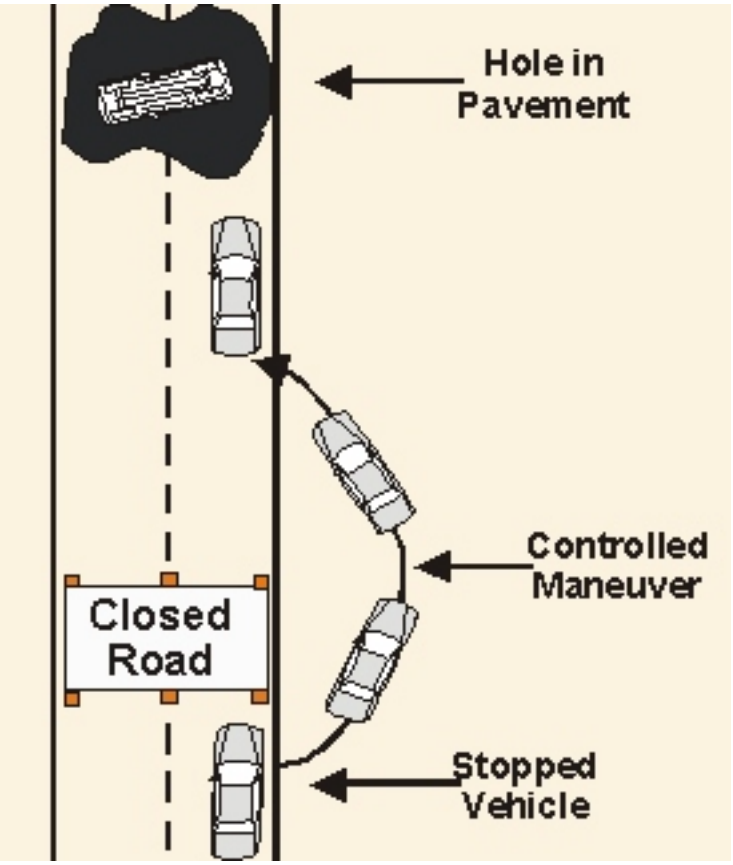
An unstabilized situation begins on a portion of the trafficway open to the public and the first harmful event occurs in a construction area closed by barricades or cones.



Motor Vehicle Accident? YES
Work Zone Accident? YES

Location? Activity Area
Type? Lane Closure

An unstabilized situation begins on a portion of the trafficway closed to public due to construction and the first harmful event occurs in the construction area closed by barricades or cones.



Motor Vehicle Accident? NO
Work Zone Accident? NO

Location? Not Applicable
Type? Not Applicable

Rationale: Used to assess the impact of safety of various types of on-highway work activity, to evaluate Traffic Control Plans used at work zones, and to make adjustments for the safety of workers and the traveling public.

B69. Crash Severity 2N (MMUCC CD1, Page 41) (Similar to WARS Physical Status)

Definition - The crash severity based upon the most severe injury to any person involved in the crash.

Can be derived from Injury Status for each person involved in the crash. No injuries would equal a Property Damage Only Crash.

Attributes:

1 Fatal Injury
2 Incapacitating Injury
3 Non-Incapacitating Injury
4 Possible Injury
5 No Injury
99 Unknown

Clarification -

KABCO Severity Scale:

Most Severe

Least Severe

Fatal Injury (K)

Nonfatal Injury

Incapacitating (A)

Non-Incapacitating (B)

Possible (C)

No Injury (O) (Property Damage Only)

Unknown

Attribute Details:

Fatal Injury: Any injury that results in death *within a 30 day period* after the crash occurred. (Although recorded at the scene, any change in status should be picked up through data linkage and reflected in the derived element Crash Severity).

Incapacitating Injury: Any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred. Often defined as "needing help from the scene".

Non-Incapacitating Injury: Any injury, other than a fatal injury or an incapacitating injury, which is evident to observers at the scene of the crash in which the injury occurred. Examples: contusions (bruises), laceration, bloody nose.

Possible Injury: complaint of pain without visible injury.

Attribute Examples from ANSI D16

Incapacitating Injury: Includes: severe lacerations, broken or distorted limbs, skull or chest injuries, abdominal injuries, unconsciousness when taken from the accident scene.

Non-Incapacitating Injury: Includes- lump on head, abrasions, bruises, minor lacerations.

Possible Injury: Includes – momentary unconsciousness, claim of injuries not evident, limping, complaint of pain, nausea, hysteria.

Rationale: Provides a classification of the severity of the crash without the user having to search the child levels of the data base.

B70. Alcohol Involvement 2N (MMUCC CD7 Page 43) (WARS Drinking Involved Page A19)

Definition - Law enforcement suspected, and documented, that at least one driver or non-motorist involved in the crash had used alcohol. Includes both alcohol use under the legal limit and at or over the legal limit.

Can be derived from driver and Non-motorist Law Enforcement Suspects Alcohol Use and Alcohol Test MMUCC.

Attributes:

1 Yes
2 No
99 Unknown

Rationale: Provides a way for users of the Base Level to identify alcohol-related crashes without having to search through the person, driver or non-motorist levels.

B71. Drug Involvement 2N (MMUCC CD8, Page 44)

Definition - Law enforcement suspected, and documented, that at least one driver or non-motorist involved in the crash had used *illegal* drugs.

Derived form driver and non-motorist Law Enforcement Suspect Drug Use and Drug Test MMUCC.

1 No
2 Yes
99 Unknown

Rationale: Provides a way for users of the Base Level to identify drug-related crashes without having to search through the person, driver or non-motorist levels.

B72. PID Coordinate Zone (PID Cities Only) 1N (WARS Page A18)

Definition - The Point Identification System, Utilizing the State Plane Coordinates

Attributes:

1 - 4

Wyoming's state plane system is divided into four zones. Use Only if the crash occurs within one of the Wyoming cities with a population of 5,000 or more persons.

Rationale: Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes. The State Plane coordinate system is the most accurate we have in the PID Cities until we are 100% GPS/GIS.

B73. PID Coordinate North 7N (WARS Page A18)

Definition - This coordinate indicates the *North* State Plane coordinate for the crash if within a "PID" city. Coordinates increase from south to north.

Rationale: Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes. The State Plane coordinate system is the most accurate we have in the PID Cities until we are 100% GPS/GIS.

B74. PID Coordinate East 6N (WARS Page A18)

Definition - This coordinate indicates the *East* State Plane coordinate for the crash if within a "PID" city. Coordinates increase from west to east.

Rationale: Accurate crash location is critical for problem identification, prevention, engineering evaluations, mapping and linkage purposes. The State Plane coordinate system is the most accurate we have in the PID Cities until we are 100% GPS/GIS.

B75. Crash DIAGRAM:

Definition - a diagram of the crash scene.

Clarification - The diagram clarifies information that may be omitted in the description or the narrative and is extremely valuable for crash analysis. A picture is often worth a thousand words. For crashes with minor severity a simple diagram is all that is required. For severe crashes or fatal crashes a more detailed diagram is required. A supplemental diagram (from PR-803) may be necessary as required by your agency. Investigating Officers are encouraged to always provide a diagram of the crash scene.

Always provide the azimuth indicating the NORTH direction.

Note the measurement to the curb line of the nearest STREET. Measurements to driveways, business entrances, and/or signs are of NO value without the distance to the nearest street, bridge structure, rail road crossing, milepost marker etc.

In rural locations describe the location to within .01 (one hundredth) of a mile. For Urban locations describe the location within 10 feet.

This manual will not include what or how to diagram a crash scene; recommend Investigating Officers refer to there agency policy and the Wyoming Law Enforcement Academy for assistance.

Rationale: This is an extremely important part of the crash report. Crash location is critical, this information is used to determine location. More than that it is used to clarify the entire report. Information from the diagram may be used to determine changes in traffic control devices, prioritization of high hazard locations and more.

B76. Crash Description Narrative:

Definition - The Narrative section of the crash report.

Clarification - It is **NOT** necessary to repeat information already included in the report, unless an item requires further explanation. Use this section to provide a simple, concise summary of the crash and include any relevant pre or post crash information.

If an **"OTHER"** selection was used in the report, then please use this section to explain.

If more space is required a supplemental traffic report (from PR-803) may be used or required by your agency. Investigating Officers are encouraged to always provide a brief narrative of the crash.

Rationale: The narrative clarifies any missing information from the report and any relevant crash information not included on the report. It's very valuable in determining the circumstances of the crash.

B77. Investigating Officers Last Name 25A

B78. Officer's First Name 25A

B79. Officer's Middle Initial 1A

B80. Officer's Rank 10A

B81. Private Property 1A

Definition - Determination if the First Harmful Event of this crash occurred on public or private property. Yes for Private Property, No for Public Roads.

Clarification - Public roads are roads owned by the state, city, county, or federal governments, and are open to the general public as a trafficway for moving persons or property from one place to another. This excludes some government facilities such as Military Bases, Correctional Facilities, the Veterans Hospital etc.

Attributes:

Y Yes
N No

Attribute Details:

Yes if the FHE of the crash occurred on Private Property.

No if the FHE occurred on a Public Road.

Clarification - The crash would be considered on Private Property if the FHE occurred outside of the Public Road or Street Right of Way, or beyond 10 feet of the road edge if the Right of Way is not known. **If the loss of control event originated on the Public Road but terminated on Private Property mark the NO box.**

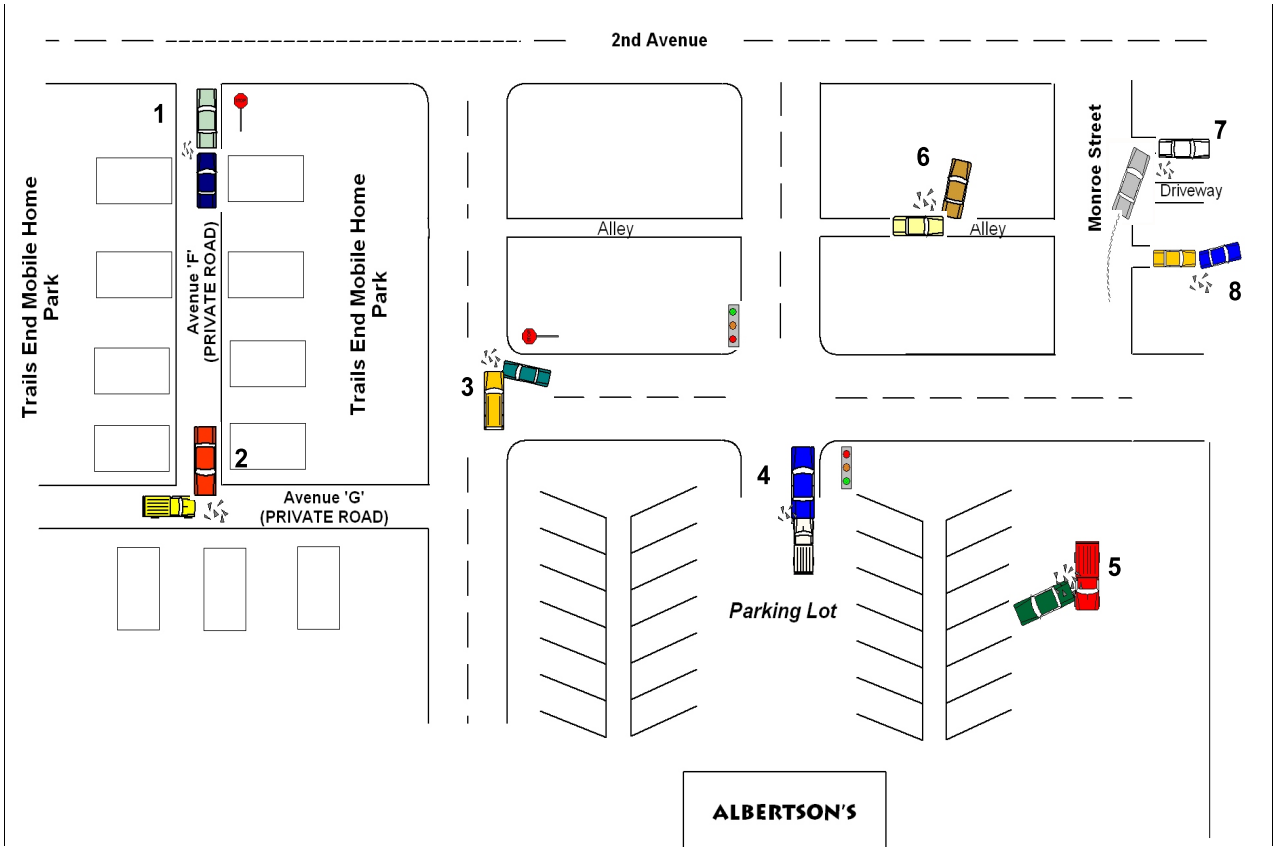
Some roads are open to the public but are owned privately and are therefor Private Property: Check the YES box.

Crash Diagrams are extremely important for verification of this data element.

Private Property

PRIVATE PROPERTY; Indicate 'YES' in the box if the accident occurred outside of the road (or street) right-of-way or beyond the 10' of the road edge if the right-of-way is unknown. If an event terminated on private property but originated on a public road, mark 'NO' in the box.

Some roads or streets are open to the public (such as subdivision, trailer parks, access roads, etc.) but are owned privately; check 'Yes in the box. Your diagram is important to the verification of this element. Public roads are owned by the city, county, state or federal government and are open to the general public (excludes roads within some government facilities such as the Veteran's Hospital, correctional facilities, military installations, etc.)



Private Property =

1. **NO; Involves vehicles within 10' of a public street. Vehicles are stopped at stop sign.**
2. **YES; Involves vehicles on privately owned street within a trailer park.**
3. **NO; Involves two vehicles on public street.**
4. **NO; Involves vehicles within 10' of a public street. Vehicles are stopped at stop light.**
5. **YES; Involves vehicles in a parking lot.**
6. **NO; Crash impact occurs on a public street (alley).**
7. **NO; Vehicle loses control on street and hits a parked car in a driveway .**
8. **YES; Vehicle is backing and strikes vehicle behind. Both vehicles are within the driveway and no activity is related to the public street.**

Clarification - 10 Foot Rule; If a crash occurs within 10 feet of the public street on a Business Entrance it is considered to be on Public Property and would be coded as the FHE event occurred on the trafficway.

Rationale: Crashes that occur on Private Property are NOT counted against our roadways.

B82. Public Property Damage 1A

Definition - Determination of whether or not damage was done to Public Property such as signs, guardrails, landscaping etc.

Attributes:

Y Yes
N No
X Unknown

Attribute Details:

Yes if damage was done to Public Property other than the vehicles. Explain the extent of the damage in the narrative.

No if there was no damage to Public Property.
Unknown should be described in the narrative.

Rationale - Used to determine public property damage and necessary repairs**.**

B83. Public Property Damage Estimate 6N

Definition - Dollar value Estimate of damage to Public Property.

Clarification - Law Enforcement Officers are **NOT** expected to be estimators. If a dollar estimate is available please enter the amount. We will link this in the future but between now and then it's best to collect as much of this information as available.

The importance of this item is to determine "IF" the statutory reporting threshold was met.

Rationale: Necessary to determine if the crash meets legal reporting thresholds for the State of Wyoming.